Ships AND SHIP MODELS

FEBRUARY 1955

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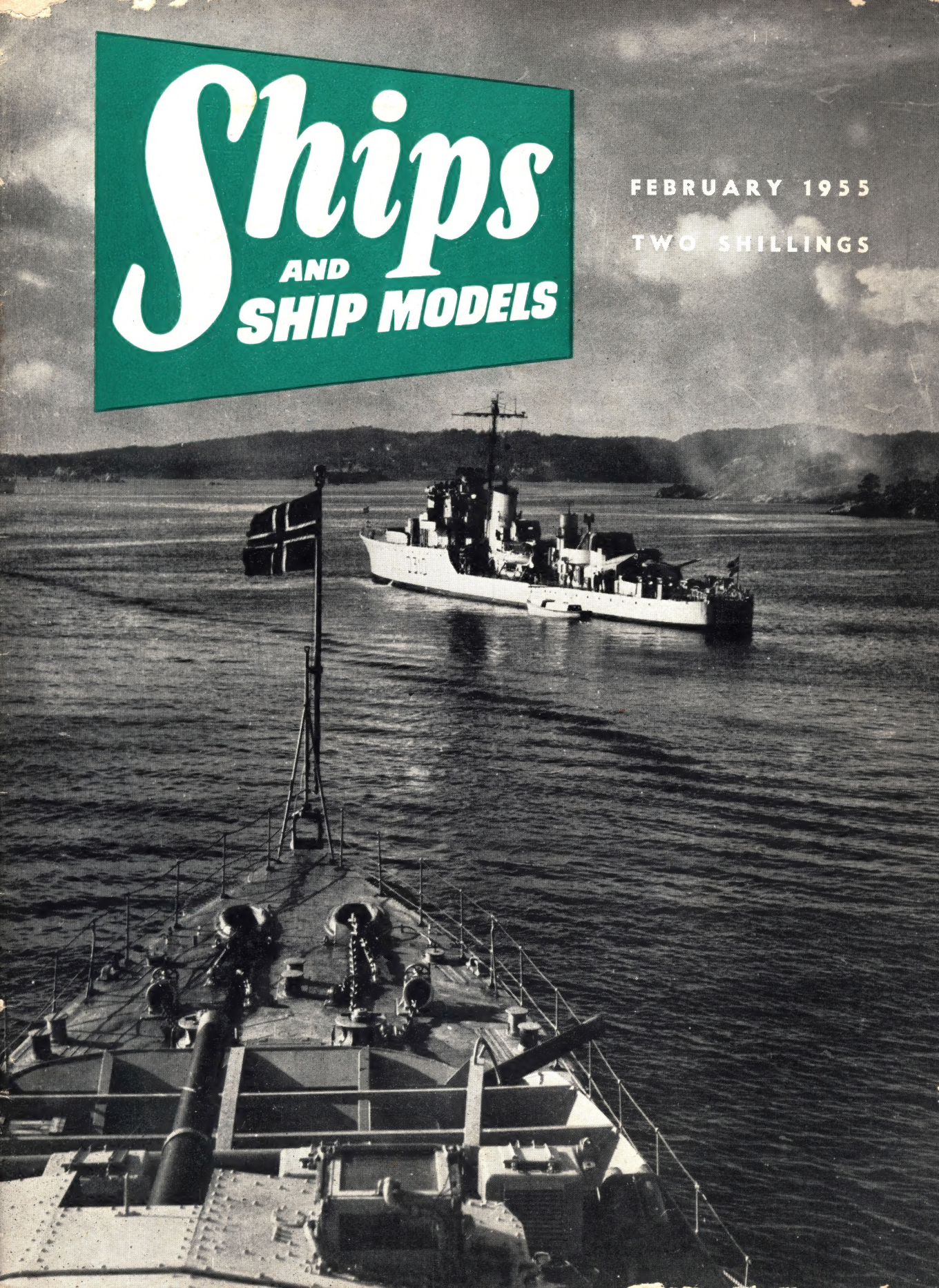

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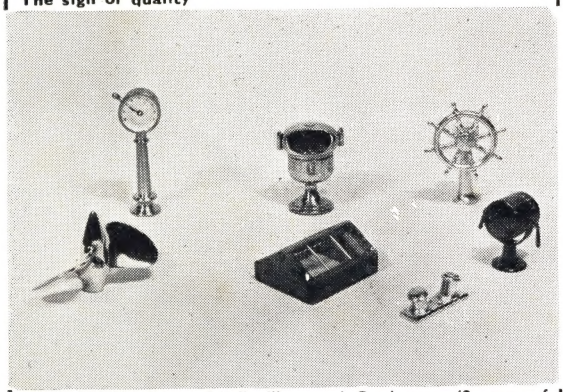

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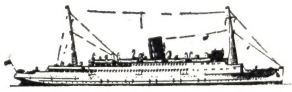

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Ships AND SHIP MODELS

INCORPORATING MODEL SHIPS & POWER BOATS

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THE SHIP'S LOG

At the time of writing, the National Boat Show was in full swing, and the term "full swing" accurately describes the condition of affairs. The visitors were interested and enthusiastic and none of them seemed tired or bored as is often the case in exhibitions. Although in some cases the visitors were more colourful than is usual at exhibitions, with their duffle coats and tousled hair, the men with their beards, and the girls with their tapering, tartan trousers (or should one say " trews "?), they understood what they were looking at, and there was a keenness and a directness in their approach that is missing from the ordinary exhibition. The idea of an exhibition of boats and yachts has certainly caught on, and we feel sure there will be more such shows in the future.

The ship model stand was a great attraction and the quality and variety of the models displayed were greatly admired. The action of the organisers of the Exhibition in putting the selection of the models and the running of the stand into the hands of SHIPS AND SHIP MODELS was fully vindicated. Comdr. Craine and his assistants had a very strenuous time and their work is certain to result in extending the interest in our hobby. Many seafaring visitors, both professional and amateur, were impressed with the developments in model yachts, the possibilities in radio control, and the high standard, in both design and craftsmanship, of present-day ship models.

In a recent issue, our companion magazine, *The Model Engineer*, commented on the confusion which exists in the maritime world about the designation of steam and motor ships. The letters M.S. or M.V. are used indiscriminately for motor ships, and, occasionally, the older letters S.S. are used. Before the introduction of steam, the type of ship was sufficiently indicated by its rig, e.g., brig, schooner, barque, or ship. Then the paddle steamer—P.S.—came along, followed by the screw steamer—S.S. Gradually, as the screw propeller became more generally used, power-driven ships were invariably indicated by the prefix S.S. When twin screws were introduced, the letters T.S.S. were used, and this was also applied to turbine driven steamers. The internal combustion engine and the turbo-electric drive have introduced complications, and developments in power plants yet to come may introduce even more. So far, the newer types are grouped under the general heading of motor ships—M.S.—or motor vessels—M.V.—and modern usage speaks of wind-driven ships as sailing vessels—S.V.—although " vessel " does not seem to us to be a very happy word to use for a ship. However, language develops and words take on new meanings from common usage and it is possible someone will be inspired to invent the word which will clear up the situation.

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The " Parma " bowling along under all plain sail

HANDLING A SQUARE

AS they disappear from the sea, the art of handling big square-rigged ships will appear more and more of a mystery. The novitiate in a nautical school, a few years from now, will turn back the pages of the older seamanship books with wonder that such vessels could ever be handled at all. Even while they still flourished, many steamship men and landsmen looked at the full-rigged ship or four-masted barque as almost an incomprehensible piece of seafaring engineering. With her high, massive rigging, her apparently confusing forest of masts and yards and profusion of wires and cordage, it was difficult to appreciate even how the sails could be set, much less handled.

Yet the big square-rigger was essentially a simple vessel, and in some ways she was simpler to handle than a fore-and-after—coming to an anchor in a crowded roadstead, for instance those big square sails were wonderful brakes. At the last moment, you could throw the main aback, take the way off her in a matter of moments, and get down the pick wherever you wanted—more or less.

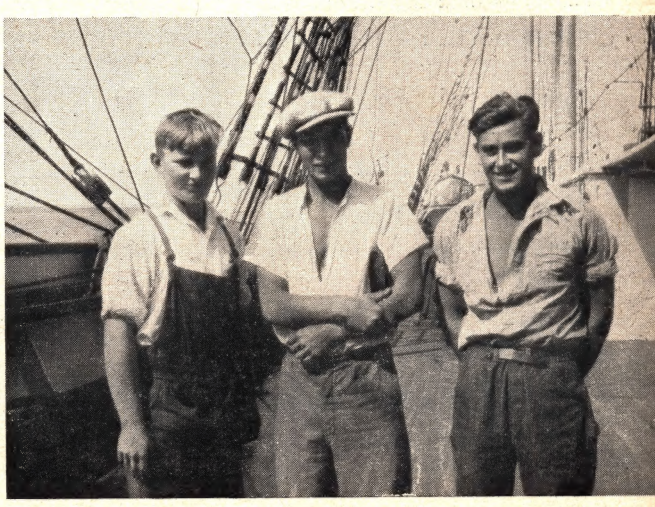
Take this matter of getting under way, for instance. I read recently that the big sailing-ships were pitiful anachronisms which had to be towed out to sea, then they drifted painfully to the next port, and were towed in again. Tugs were used a lot in the last days, and a lot of ships got under way simply by following a tug out and gradually putting on sail with a fair wind, while still at the end of a tow-line. Then the tug let them go. That was the lazy man's way, and it was never the way with the Finnish grain-racers, loading in outports of Spencer Gulf down in South Australia. If they hired too many tugs they showed no profit. They were almost invariably got under way right from the anchorage where they loaded their grain, and I have been in one which sailed from alongside the wharf at Wallaroo, and seen many others do the same thing. No tugs for them!

Take the ship at anchor first, and let her be a four-masted barque. (Barques and full-riggers are about the same to handle.) Now, she lies head to wind, held by one big bower anchor. The wind, say, is from the nor'ard: the way to the sea is towards the south. The ship lies with her head pointed north and you want to get her turned around, and all the sail on her as quickly as possible. You have a crew of twenty-four boys, but they have already sailed the ship from Europe and they know their stuff. To help hoist the yards and weigh the anchor you have steam on the ancient donkey and hope it won't blow up. A day or two before, you have bent all sails which were stowed away in the sail-locker while the ship was in port. (And bending them was a job, too, for the crew of boys. But it's done, and they are all ready. And you've seen all the gear—braces, sheets, halliards, and so forth—clear for running.)

You loose all sail, and that takes a little time. The fresher the breeze, of course, the more you'd keep fast : but those big four-masted barques with steel yards to the royals could stand a lot. In flat water, you could drive them to a maximum speed, under all they'd carry. At maximum speed, of course, any superfluous sail would only strain the masts : the art was to get the best out of them without strain and that art only experience and " flair " could acquire. It's of no use to write about it.

With the sails loosed, and a boy to each mast left aloft to look after the gear as the yards went up and to overhaul the buntlines and so forth, you next hove short. I always used to consider each problem (of getting under way) as I tackled it, and I would trim the yards for the wind the way I was going to use it on my first course. Lying head to wind, heaving up the anchor, I'd have the head yards

Boys like these fine lads from the " Parma " were the nucleus of my crew



RIGGER

By ALLAN VILLIERS

aback, and the main and mizzen both ready the way I wanted them to be, and the idea was always to use the backed head sails to swing the ship's head round until the sails on the other masts filled. So when I was hove short, I'd set the six tops'ls and a couple of the jibs, have the spanker ready for sheeting, as that was such a useful sail for helping the steering. When I first set the square sails they'd all be aback, of course. But as soon as I tripped the anchor, those jibs hauled out to wind'ard and the square sails on the fore, all aback on a different plane from those on the main and mizzen, would at once cause the ship's head to pay off from the wind. She'd take a cant to starboard and, once again, she'd usually swing fairly quickly, and it wouldn't be long before the sails on the main and mizzen were beginning to fill. When they filled, the ship was under control. I could then haul round the head yards and have all sail drawing, and proceed to clap every stitch on her as quickly as possible. The spanker and the fore-and-afters generally were more steering and balancing sails than anything else: the ship was ordinarily manoeuvred from anchorage by using the planes of the square sails. They were better. You could scarcely have a better means of canting a ship's head than to throw the head yards aback.

Such manoeuvres looked complicated, but they were not. There had to be a good deal of shouting of orders because so many yards, sails, and tackles, pieces of assorted wire and cordage, etc., were involved. And often you'd find that something wasn't clear because somebody had led it wrongly, or taken gear to the wrong belaying-pin, Sailing-day was a hard day, but the actual manoeuvre of getting under way was *not* the worst part of it.

Once the ship was under control with a decent sailing breeze and her sails all well set, she was much more manoeuvrable than the ordinary powered vessel. You could do more things with her, and more quickly—like getting the way off, if some boob fell overboard. You'd throw the mainyards all aback then, and they'd brake her. You wouldn't throw the headyards aback or she'd go around, but she'd keep straight with the main-yards backed. That was the way pilots used to be dropped. Sailors spoke of this as being " hove-to " which was somewhat confusing as heaving-to meant also to get the way off and lie shoulder-to a furious blow too strong for the ship to use.

Square sails were set easily enough, either by sheeting them from standing yards to the yardarms of the yard directly below, or by sheeting them and hoisting the yards by means of halliards led to the deck. They had the great merit of staying put.

On the tops'l yard

There were no gaffs to bang about the place, and the steel yards were held from all angles by means of braces, lifts and either halliards or steel stays or chain slings. Hoisting yards were held at the mast by heavy parrals. Braces were important, and these were always of heavy steel wire in the bigger ships. and were sometimes led to hand-operated winches for greater ease of handling. The great thing was, *first*, to get everybody to know the ship. For this, boys were the best. It didn't take more than a day or two for the average sea-minded boy to master the complexities of a four-masted barque's rigging. After all, once he joined he lived aboard. He didn't have to travel to his work. Every piece of cordage had its work, its place, and its name. Some masters used to label everything for the first day or two, and the mates would lead the boys around explaining things. On the third day the labels were removed, and explanations thenceforward were by the use of the sea-boot. It worked.

Boys were good crews—boys of all nationalities. Any boy, healthy and fit and with a head for heights, would make a good sailing-ship sailor if there was a tenth of one per cent. of Stockholm tar in his blood. We found that in the *Parma*, for instance. When Captain de Cloux and the little group of us bought the four-master *Parma* from Laeisz in Hamburg a

few years back, we did not hesitate to ship out twenty young boys, none of whom had been to sea before. We towed to sea and got her under canvas off the mouth of the Elbe. It was October, a harsh month in the North Sea. She was in ballast, bound for Australia. There were seven aboard who knew their stuff. It worked splendidly. Those boys were green in the scuppers for the first few days but they did their work, and within a few weeks they were like veterans. By the time we got to Spencer Gulf, they brought her to her anchorage as if they had all been ancient mariners.

Speaking about coming to anchorage, that was also a simple enough thing to do unless the anchorage was crowded. Then you had to keep your nerve. In the Australian trade we didn't meet many crowded anchorages. Generally there'd be no more than half a dozen square-riggers in port, at the most, and no steamers. So you'd come up to anchorage under easy sail, generally with the six square tops'ls and a few fore-and-afters. The other sails were clewed up and all would be secured properly when the anchor was down. You'd pick your spot, steer for it, reducing according to the strength of the wind to the main upper tops'l, spanker, and one jib. Then when close to the chosen spot, you'd haul down the jib, pull the spanker to wind'ard, down helm, and throw the main tops'l aback—all these things as smartly as possible, and you'd have the crew divided up for their rapid accomplishment with the mate for'ard, second mate aft, and third mate about the decks. With the tops'l aback (and little way on her before that) she'd soon stand still : at precisely that instant, " Let go !" would be the order, and the cable would be pulled gently out of her with sternway. Then clew up the main tops'l, and send the hands aloft to secure everything with a good harbour stow.

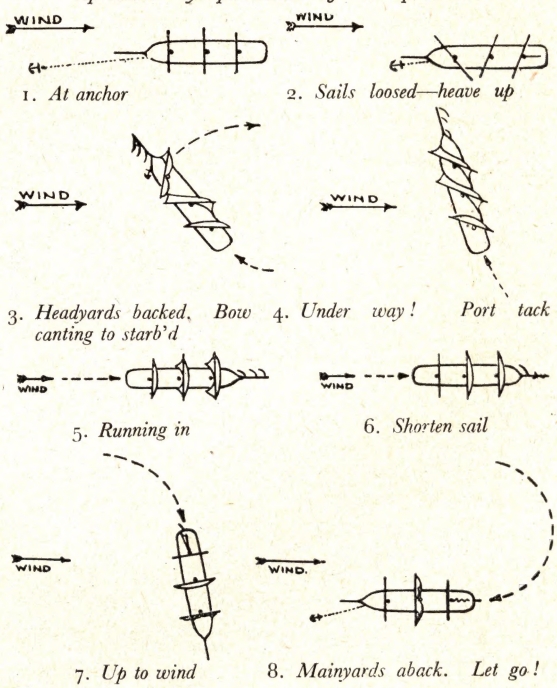
As for sailing from beside a dock or alongside a jetty somewhere, all you wanted was a fair wind and room to swing the ship. I got the *Joseph Conrad* under way from the Battery in New York once. The wind was right down the Hudson and it was a cinch. Her bows were towards South Street and the river was full of ice. All I did was to haul her along to the end of the berth, keep a bight of line on the end of the dock from the port quarter, set the jibs and the fore tops'l aback, let go everything but that one quarter line, and of course she had no choice but to come right round on her heel with her bows out to sea. Then let go and give her good canvas as quickly as possible. From there, I sailed down to Rio, and Tristan da Cunha, and the Cape, and on to Bali and the Islands, and I had to take a tug only to berth her at Cape Town. Old-timers used sometimes to sail smart little ships alongside, but I never had a crack at that. The nearest I ever came to that was in the full-rigged ship *Grace Harwar*. when Captain Svensson anchored her right along side the wharf at Wallaroo and then warped her to her berth, running the lines with her own working-boat.

After all, steamers need docking tugs, and use plenty of them.

On the royal halliards. The net was for life saving

If the wind was ahead, getting under way itself would be the same manoeuvre, but then you'd have to beat. You would be foolish to try to beat from too confined an anchorage, but I have seen both the *Danmark* and the *Georg Stage* beat out of Copenhagen, and that within the past few years. In flat water, a square-rigger has much less chance of missing stays when she is put about. Then, too, in most harbours there is some movement of the surface water which the experienced sailor can turn to the advantage of his ship. If the tide is pushing him out it will be a great help, even against a head wind.

Getting a full-rigger under way—from " The Way of a Ship," reproduced by permission of the publishers



1. *At anchor*
2. *Sails loosed—heave up*
3. *Headyards backed. Bow canting to starb'd*
4. *Under way! Port tack*
5. *Running in*
6. *Shorten sail*
7. *Up to wind*
8. *Mainyards aback. Let go!*

In favourable conditions even a full-rigged ship—if she is not a box—will tack in a moment or two if she is going to do it at all. Very light winds and very strong winds made such a manoeuvre impossible ; then she had to wear, running off before the wind and coming up on the other tack, gradually hauling the yards around as she came.

In tacking, as in getting under way, those big square sails would do their stuff for you manfully. The thing was to swing the ship across the wind in her stride—to tack her with good way, so she would swing across head-to-wind without picking up stern-way. Again, the head-yards would box her around, if you let them. The art was in the preparation and in judging precisely the right instant to swing the main and mizzen yards. They would swing themselves just as the wind crossed the bow: then they'd soon fill, on the other tack, and all you'd have to do would be to haul the head-yards around, set the courses on the other tack, and shift over the fore-and-afters. The spanker was a help for bringing her quickly up to the wind.

Let's take a look for a moment at this business of going about in, say, a full-rigged ship. The problem is simple. You are bowling along six and a half points from the wind, all sail set on the port tack. You want to get the wind on the other bow, and bowl along equally handsomely on the starboard tack, and you want to do just that without losing any ground. The whole thing boils down to organisation, crew-work, good judgment.

First, see everything clear for running, and the crew properly organised for the job. (It was usually all hands on deck for that one.) Mate for'ard, second mate aft, third mate about the deck superintending generally, cook to the fore sheet which usually was handy to his galley : the mate's watch had the fore yards and the jib sheets, and the second mate's looked after the main and mizzen, which did not have to be hauled. In under-manned ships—the usual—the master, helmsman, and perhaps sailmaker would look after the poop. Seeing everything clear for running meant that the braces were down on deck coiled clear so they would run out without any chance of snarling, and the mainsail and crojack hauled up in their gear, so they would not get in the way.

" Keep her a nice full," the Old Man would say to the man at the wheel, getting good way through the water and not pinching her into the wind.

When she was blowing along nicely and there was no particularly big sea rushing up to slap her in the face, " Lee-oh ! " would be the next order. At once, the helmsman would put the helm down for his life, and the poop gang haul the spanker boom to wind'ard, while the mate and the carpenter up for'ard let the jib sheets fly so's not to hold her nose from the wind. Quickly she'd swing, and the Old Man would watch like a hawk. Standing on the poop, with maybe 40,000 square feet of canvas thrashing and booming over his head and four masts between him and the bow, it would be a job to know just what the wind was doing, if he weren't an old hand at this sort of thing. And there was always a windsock to help him, put where it was out of eddies. Just at the precise instant the ship came right head to wind and was swinging to get the wind on the other bow. " Mainsail haul ! " was the order. Then the second mate let go the lee main braces and a leading hand the lee mizzen braces, and the watch took in the slack of the weather braces hand-over-hand, working like demons as the yards swung themselves. No sooner would they be around than, with the ship's head still swinging, they would begin to fill on the other tack, and the ship, stopped in her stride, would slowly begin to make way again.

Bending sail and seeing the gear all clear, came first

" Let go and haul, Mister Mate ! " was the last shout from the poop. Around would come the head yards, with hard pully-hauly: once they were around, the job was done. The fores'l would be set properly, the big main and the crojack sheeted aft and tacks bowsed down, all the fore-and-afters shifted over, the trim of the yards perfected, and then everything made clear for running for a repeat of manoeuvre, as necessary.

It was strenuous, but it was fine training. It was good team-work, and the boys always felt that they could see something for their efforts. They were sailing the ship by their own brawn, and her " engines," in the shape of her white and graceful sails, were in clear sight above them. A fellow felt useful, and that his efforts amounted to something. No one was just a cog in a soulless machine.

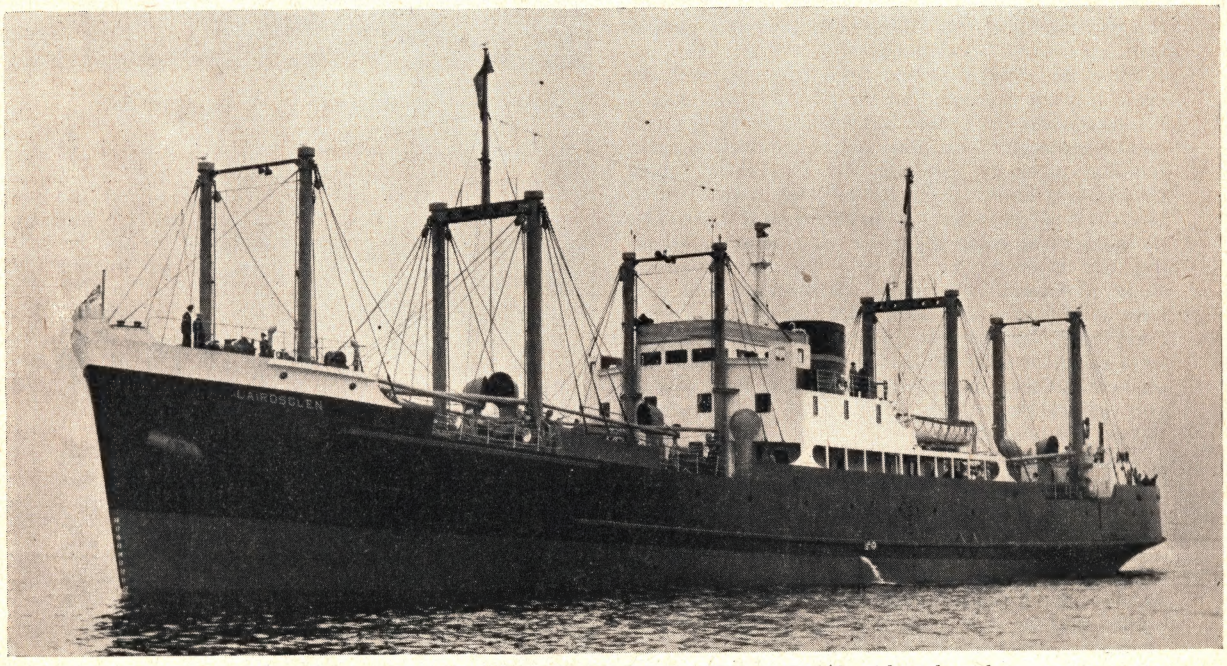
TROJAN STAR

LATE last year the Blue Star Line ordered three new refrigerated cargo liners. One, to be built by Cammell Laird & Co. Ltd., will have a deadweight capacity of 14,500 tons and is scheduled for delivery in 1957. The orders for the other two were placed with the Bremer Vulkan shipyard at Vegesack. These will have a carrying capacity of around 12,000 tons and are likely to be fitted with M.A.N. type diesels of about 10,000 b.h.p., giving a speed of some 17 knots. Like other German shipyards the Bremer Vulkan work three shifts a day and this has enabled them to offer quick delivery—some fifteen months sooner than that from any British yard. The ships it is worth noting are also being built on a fixed cost basis. One of these German-built vessels will replace the Blue Star Liner *Trojan Star*, a 38 year old veteran which featured in the casualty list just a little while after she had been earmarked for disposal. While outward bound from the U.K. to Australia she had an outbreak of fire in No. 3 hold and had to put back some 1,200 miles to Colombo, arriving there on October 13th. By then the fire had been burning for six days and several more elapsed before it was finally put out. The *Trojan Star* is not only the oldest ship in the Blue Star fleet, but is also unique in being the last large French built ship to be owned in Great Britain.

She is also the last of an interesting and impressive looking group of four masted liners, units of which were built both in the U.K. and France. The three British built vessels were the U.S.N.Z. owned *Leitrim* (8,988 tons, finally *Narbada*) and the Federal Liners *Cumberland* (9,471 tons) and *Westmoreland* (8,999 tons). Twin screw turbine driven ships, they were built in 1915/15/17 by Raylton Dixon, Wm. Hamilton and D. & W. Henderson respectively. The other three, which came from the Ateliers et Chantiers de France, Dunkirk had reciprocating machinery and were named *Devon*, *La Perouse* and *Jacques Cartier*. All six were of fo'c'sle and bridge deck type and measured 470/474 ft. b.p. by 60 ft. beam. The three Federal ships became war losses, the *Cumberland* during the first world war and the *Westmoreland* and *Devon* —the last named then under British India ownership— during the second one. The *Jacques Cartier* was owned for many years by the C.G.T. (French Line) both under this name and as the *Winnipeg*, while the Cie. France de Nav. also had her for a short while as the *Paimpol*.

La Perouse was owned by the Cie. Generale d'Arm. Maritime, Paris—an associate of the C.G.T.—until 1924, when she was sold to the Blue Star Line who renamed her *Trojanstar*. (Some years elapsed before the present two-word arrangement of the name was adopted.) About that time she was converted to oil fuel, while later a Bauer Wach exhaust turbine was fitted. Even today, after many years service, this remarkable old ship is still good for a steady 12 knots, with a little in reserve if required. She has a carrying capacity of 10,588 tons and of her total cargo space has some four-fifths of it insulated. Originally the ship carried four top-masts, but these were later reduced to two. The painting of funnel, superstructure and especially hull has undergone various changes. Latterly, as the illustration shows, the once black-sided islands have been painted white.

SHIPS



M.V. " Lairdsglen " built at Ardrossan for the Burns & Laird Irish/Scottish cattle trade

in the news

Above : The veteran whaler " Orwell " in her final guise. Shown when on the point of leaving Tonsberg for the Antarctic

LAIRDSGLEN

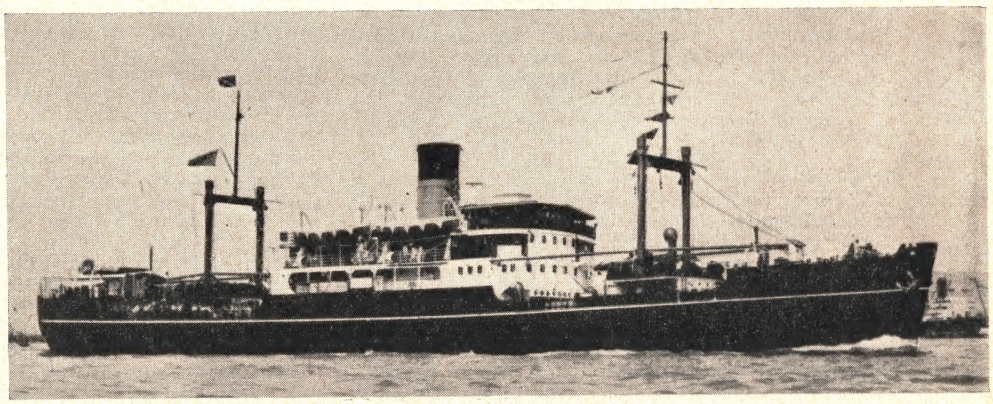
The new Burns & Laird Lines' m.v. *Lairdsglen* and the two sisterships *Whitby Abbey* and *Fountains Abbey* of The Associated Humber Lines provide an interesting contrast in profile and internal fittings, especially as basically they have much in common.

The first named, a product of the Ardrossan Dockyard Ltd., was originally ordered by the British & Irish Steam Packet Co. Ltd., the contract being transferred while the ship was under construction. The *Lairdsglen*, which is the largest yet built at this yard, is designed for the Irish/Scottish cattle trade. She measures 280 ft. in length b.p. by 43 ft. beam mld. and is built to carry 750 tons of cargo and 480 head of cattle. Beneath her 'tween decks there are three holds, two forward and one aft of the machinery space. No. 1 hold is devoted to cargo, but the rest of the space is normally used for the carriage of cattle and horses, and is fitted with the necessary pens. Right aft, on the main deck, there is special accommodation for the cattlemen and storage space for hay. The ship has several side openings and is also equipped with five pairs of kingposts, each of the three hatches being served by four derricks. Two Clark-Sulzer type diesel engines are fitted. These have 6 cylinders apiece and develop a total of 2,600 b.h.p., giving a speed of about 14 knots.

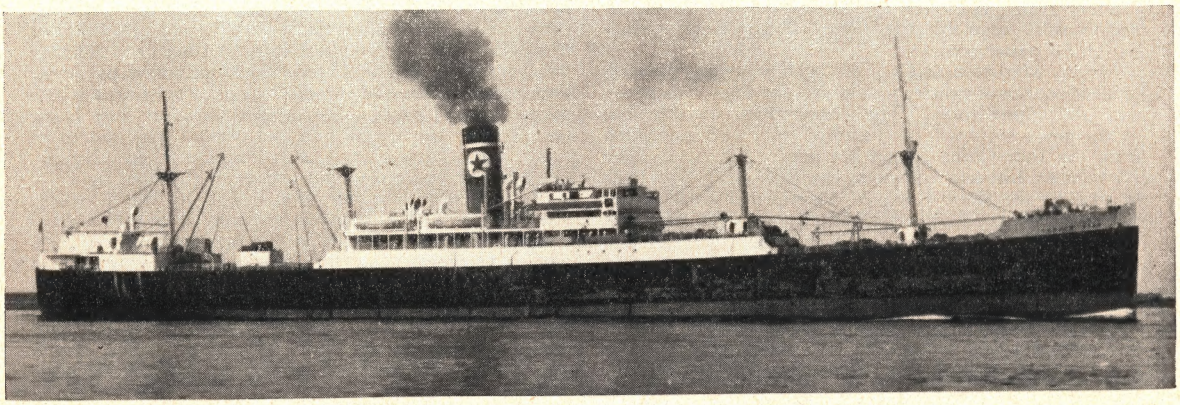
WHITBY ABBEY AND FOUNTAINS ABBEY

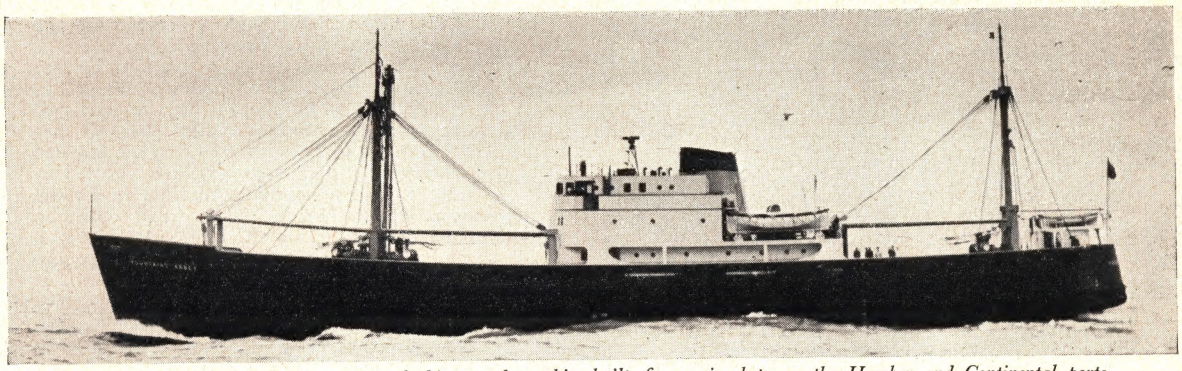
The other two ships have been built by Hall Russell & Co. Ltd., and are designed for service between the Humber and near Continental ports. They replace two old steamers, the *Irwell* (built 1906, 1,040 gross) and the *Alt* (built 1911, 1,067 gross) respectively. The two *Abbeys* alternate with each other on the Goole-Amsterdam-Rotterdam and Goole-Ghent-Antwerp services. They have exceptionally good accommodation for 12 passengers in six cabins, each of which is fitted with two beds. These, with the smokeroom are situated on the boat deck, while the dining saloon is beneath, on the upper deck, where it occupies the front and full width of the

Right : S.S. " Wing Sang," 3,560 tons, which as the " West Indian " will now trade in the Caribbean



Below : S.S. " Trojan Star " of 10,588 tons about to be broken up after 38 years service





M.V. "Fountains Abbey," a smart-looking modern ship built for service between the Humber and Continental ports

superstructure. An incidental but quite noteworthy feature is that in these two vessels the passengers' and crews' accommodation is ceiled throughout.

The *Whitby Abbey* and *Fountains Abbey* both measure 256 ft. in overall length, 240 ft. b.p. (waterline) by 38 ft. 6 in. moulded breadth. About half a knot faster than the *Lairdsglen*, they are powered by single 6-cylinder Kincaid-Polar diesels, developing 2,100 b.h.p. Both ships are of open shelter deck type and have a d.w. capacity of 1,240 tons on a draught of 13 ft. 5 in. They are required to carry very varied cargoes, but special attention has been given to the easy transport of fruit and vegetables.

The hull in both is flushed decked, has continuous bulwarks and is topped by a superstructure that is simple, yet of remarkably well balanced appearance. The funnel, too, is of pleasing shape, tapered and with a slanting top. The derricks are rather heavier than is usual : besides one of 15 tons capacity there are six others, each capable of a 7-ton load. The small boat aft, it should be noted, is not handled by davits, but by another lighter derrick.

WEST INDIAN

To meet the demand for better inter-island communication the newly formed West Indies Navigation Co. Ltd. is starting a service which will link the various British island territories in the Caribbean. The Company's headquarters are at Port of Spain, Trinidad, and they will employ one steamer, the 3,560 ton *West Indian*. She will sail from that port at approximately three weekly intervals for Grenada, St. Vincent, Barbados, St. Lucia, Dominica, Montserrat, Antigua, St. Kitts and Kingston (Jamaica), returning by the same route. The first northward sailing from Trinidad will be on or about January 18th. Although the service is primarily intended to assist cargo shippers, there will also be accommodation for passengers.

Messrs. Matheson & Co. Ltd., who represent the firm in London, are of course, well known for their association with the China trade. The vessel which will be used on the new service will be chartered from their associated firm, the Indo-China Steam Navigation Co. Ltd. The *West Indian*, hitherto known as the *Wing Sang*, was built in 1938 by the Hong Kong & Whampoa Dock Co. Ltd. She measures 328 ft. in overall length by 48 ft. beam and has a carrying capacity of just over 3,000 tons. A single triple expansion engine and l.p. turbine give her a speed of 14 knots. Accommodation is provided for 20 first saloon and 35 second saloon class passengers.

Besides these she can carry a large number of deck and steerage class passengers. The ship was one of a group of three built for the Indo-China S. Nav. Co. Ltd., the first of which was the 3,469 ton *Taksang*, completed by Lithgow's yard in 1935. She served as the prototype for the other two, the sisters *Tai Sang* and *Wing Sang*, which were built at Hong Kong three years later. Only the last named survived the war, the others being sunk in 1942.

The photograph shows the *Wing Sang* in Indo-China colours. On her new service she will retain her red and black funnel and continue to fly the same houseflag. As regards future hull colours, no definite information is available, but it seems unlikely that these will be altered.

ORWELL

The *Orwell*, well-known veteran of the Norwegian whaling fleet, has made her last voyage back from the Antarctic and has been sold to German breakers, fetching the sum of £66,500. This ship was one of the last left in this trade to have been converted from a dry cargo ship. Latterly used as a tanker and for carrying personnel and supplies to an Antarctic shore whaling station, she was previously a whale factory ship and before that one of Britain's crack cargo liners.

A single screw three-island type ship measuring 470 ft. b.p. by 58 ft. beam, she was a product of the Clyde. Built as the *Knight Templar* in 1905 by Chas. Connell & Co. Ltd., her first owners were the Knight S.S. Co. Ltd., a London firm managed by Greenshields Cowie & Co. Reciprocating machinery was the rule in those days, and she was fitted with Scotch boilers and a single triple expansion engine made by David Rowan. In 1917, the "Knight" fleet, which consisted of four ships totalling 27,807 tons, was bought by Alfred Holt & Co. The *Knight Templar* however, was not renamed, and she continued as such until the middle 'twenties when she was sold to Hans Borge of Tonsberg. He rechristened her *Orwell* after an earlier and smaller vessel, and had her converted into a whale factory ship. She was not however given a stern ramp, the whales instead being flensed alongside. These alterations increased her gross tonnage from 7,203 to 7,968. Later, when outmoded by newer and larger vessels, the *Orwell* was converted into a whale oil tanker and supply ship, accommodation also being provided for the several hundred persons who had to be taken south each year. As a result of these changes, her tonnage was once again raised to the final figure of 8,095. Latterly, she has been owned by the Tonsberg Hvalfangeri A/S, a firm which also owns the fleet of "Busen" catchers as well as one modern tanker. As a whaler, however, the *Orwell's* colours have remained unchanged, with grey hull, white superstructure and black, red-banded funnel. The funnel in recent years has been shortened and given a wider outer casing, thus enclosing the thin uptake for the donkey boiler, which was formerly separate and rose just in front of the main stack.

Problems in Royal Yacht Design

"SHIPS AND SHIP MODELS" DISCUSSES A SUBJECT RECENTLY IN THE NEWS

Photo : "Planet News"

The former Royal Yacht "Victoria & Albert" under tow on her last trip

IS there a hoodoo on our Royal Yachts? There seemed to be in the old *Victoria and Albert* which was laid down at Pembroke in 1897. On her first taking the water she nearly capsized and was found to be definitely top-heavy. This was largely owing to the fact that nearly 800 tons of top-weight had been added in modifications after the design had been approved, many of them being done without the authority of the Admiralty. After some 250 tons of top-weight had been removed and replaced by 250 tons of ballast she proved herself quite seaworthy. In spite of this Queen Victoria could never be persuaded to sail in her, although King Edward VII and Queen Alexandra used her extensively, and she has been very popular with Royalty until recent times.

Now, according to a report in one of our daily papers, the experts are having a little difficulty with the new Royal Yacht, *Britannia*. The most experienced of our naval architects and shipbuilders were employed on her design and construction and everything was done to ensure that she was stable and steady in a seaway. This is important not only for the comfort of her Royal passengers, but also in view of her possible use as a hospital ship in time of emergency. She was designed as a naval and not as a military hospital ship. In the military ship the chief object is to transport the wounded to a shore base as quickly as possible, whereas a naval hospital ship is usually a base hospital which serves *with* the fleet. Serious cases may have to be accommodated on board for some little time, and surgical operations are to be expected. It is essential, therefore, that the ship should be as steady as possible. In the *Britannia* to keep the roll to a minimum Denny-Brown single fin stabilisers are fitted. These consist of fins 4 ft. 6 in. wide of aerofoil section, located approximately amidships, which may be made to project 9 ft. 4 in. on each side of the ship, and are designed to reduce a roll of 10 deg. per side to one of 3 deg. Similar stabilisers have been fitted with satisfactory results on several recent passenger liners, although some travellers declare that the stabilisers tend to aggravate pitching fore and aft. It is suggested, however, that the *Britannia* still rolls too much and considerable thought is being directed to the problem.

Another difficulty which has been encountered is the "singing" of the starboard propeller. This is probably due to the combination of a large number of different vibrations in the propeller blades, the propeller shaft, its bearings and brackets, and also in the structure of the ship herself. Why it should occur in one propeller and not in the other is somewhat of a mystery. In fact the whole question of the vibrations which can be set up in a "live" structure, such as a ship or a locomotive, can be very baffling, and we have, of course, a very striking example of this in the breaking up of the "Comet" aeroplanes in mid-air. However in the case of the *Britannia* certain slight alterations are being made, and it is sincerely to be hoped that they will effect a complete cure.

next month

The March issue of SHIPS AND SHIP MODELS *will contain in addition to the usual features . . .*

TALKING OF SHIP'S BADGES
A. E. Weightman follows up his previous article on figureheads with this interesting description of the shipping company insignia to be seen aboard many craft.

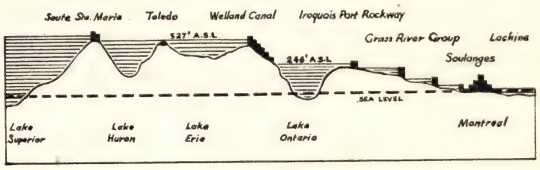
THE CAMERA LOOKS BACK
Incidents that pass and are forgotten need not be lost for ever as Clifford J. Hawkins shows in this illustrated article The author has gathered pictorial records of nautical events during the past few years and is seldom seen without his camera at the ready.

DETAILS OF THE ALGERINE CLASS MINE-SWEEPERS
Norman A. Ough presents a second drawing showing the lines, plating scheme and gives invaluable details of deck and armament fittings.

The St. Lawrence

BY D. G. D. HAWS

Map showing route from Lake Ontario to Montreal



Sectional diagram showing levels and locks

THE first proposals for linking the Atlantic and the Great Lakes by means of a deepwater channel were put forward towards the end of the last century. The acceptance of these plans has only now been agreed upon between the United States and Canada. From its inception the project met with opposition from a large section of the North American community. When it was at last realised in Washington that unilateral action by Canada was imminent, ratification, in part, was forthcoming.

The full project will provide a 27 ft. channel permitting lake and ocean-going vessels to traverse over 2,000 miles of inland waterways from the mouth of the St. Lawrence river to the heads of Lakes Superior and Michigan. The works approved by Congress under present appropriations will, however, lead only to the development of that part of the St. Lawrence which forms the natural frontier between the two countries. The work will include the deepening of shoal water in the Thousand Islands section at the head of the river and the construction of jointly owned locks on the 45 mile section known as the International Rapids stretching from Ogdensburg (N.Y.) to St. Regis (N.Y.). The scheme passed by the Government of Canada provides for the deepening of the Welland canal and embodies the development of the 75 mile stretch of river between the Canadian frontier (St. Regis) and Montreal. The building of the Seaway will include hydro-electric power installations on an extensive scale. The Welland canal, by-passing Niagara Falls, connects Lake Ontario with Lake Erie and lies wholly within Canada. Its inclusion in the scheme will therefore provide a deepwater channel from the Atlantic to the head of Erie, a distance of over 1,500 miles. Toledo being the furthest port capable of benefiting from the coming six years of development.

Since Congress refused to authorise the deepening of the interconnecting canals between the other Lakes ocean going vessels drawing more water than existing Lakes vessels will not be able to reach Lakes Huron, Michigan and Superior. No deepening of existing port facilities will be necessary at present.

Having defined the scope and limitations of the work it is now necessary to see what is involved. In July 1953 the Canadian Minister of Federal Transport announced the setting up of three bodies to deal with the construction of the seaway : The St. Lawrence Seaway Authority with capital of $300 million to build and operate the works on the Canadian side ; a board of engineers (joint Canadian-U.S.) to advise on hydro-electric and navigation work ; and a board of control to work on water flow problems. Parliament voted $300,000 for preliminary work on the seaway. Of the river itself the distance between Lake Ontario and Montreal is 180 miles, and by means of shallows, rapid and lakes the river falls 246 ft. The existing up-river canals at Lachine and Soulanges restrict shipping to vessels not exceeding 14 ft. draught and about 2,000 tons gross. These two canals will remain and new channels will be created. On the International Rapids section the locks will be built on a joint plan with a separate system on both the Canadian and United States banks of the river. A control dam will be incorporated in the Iroquois-Port Rockway lock at the western end of the section and at the lower end near Cornwall (Ont.) and St. Regis a spillway dam will be built at Long Sault together with the Barnhart powerhouse. These will form a part of the joint system. Two further powerplants are to be installed in the all-Canadian section above Montreal. Of the lock systems four are Canadian and two American.

The opposition previously mentioned has come principally from commercial interests along the eastern seaboard of the United States. The Senate Committee on Foreign Relations had already shown itself to be favourable to the project by declaring that

Seaway . . . .

such a seaway would form an important part of the national system of defence by providing an alternative route for the movement of iron ore to the main steel manufacturing areas. In addition access would be afforded to the ship-building and ship-repair facilities located in these relatively remote parts of the North American continent. In time of war the seaway would help lift the burden from the railways. Military opponents of the scheme have called the Great Lakes " America's most exposed frontier " and have pointed out the dangers of failing to take into consideration trans-polar distances and the vulnerability to guided missile attacks of the lock systems whereby all seagoing vessels in the Great Lakes at the time would become imprisoned until the seaway was again navigable.

The argument which finally led to the passing of the United States legislation arose from a meeting of the Joint Chiefs of Staff in January, 1954. It was then declared that as Canada had made quite clear her intention to proceed with the scheme the failure of the United States to participate would result in the construction of the locks of the International Rapids section wholly on Canadian soil and therefore outside of U.S. control. The eighty-third Congress of the United States therefore gave its support.

The effect on commerce must be looked at on two counts. First, there is the cumulative beneficial effect upon the area of the Great Lakes as a whole and secondly, there is a possibility that ports such as Boston and New York may suffer a degree of recession either temporary or permanent.

On Lake Superior the rapid depletion of high quality open cast iron ore reserves will lead, shortly, to an increase in the import of ore ; particularly from Labrador. By the process known as " beneficiation " low grade ore is being reduced to taconite and, despite the high cost, plants to handle this are now in operation. The resulting increased use of inland transportation will need the extra port facilities as they become available throughout the Lakes. It is also expected that new industries, including trades allied to shipping, will be attracted to the area. The construction work itself, coupled with cheaper electric power, would act as stimuli both to Canadian and United States interests. Local ship-repairing yards will also benefit from the inevitable result of increased shipping operating in confined waters.

The actual effect which the St. Lawrence Seaway will have on the coastal ports is a question not readily answered.

Perhaps the most difficult problem is that which arises from the fact that, due to ice conditions, the seaway is unusable for about five months of the year. The dislocation of dock labour, brokerage work and ancillary supply trades is one not easily solved ; particularly as the overall annual flow of cargo cannot be halted by ice considerations and will have to be diverted to coastal installations. The Eastern seaboard will still, therefore, handle as much as one third of the newly created traffic and this may involve the creation of extra equipment and labour.

The Port of New York Authority estimate that as much as 3 million tons of general cargo may be diverted ; representing one sixth of their overseas commerce. Boston (Mass.) is considered to be more severely affected, with anticipated losses of over 25 per cent. of her seaborne trade. Not least of the effects which will result from the work will be upon the overland transportation concerns. Midwestern destinations are at present served almost entirely by transhipment services via east coast ports with onward carriage by road or rail. Goods consigned by the seaway to towns at or near the main Great Lakes centres will show a marked reduction in freight charges when compared with the previous routings.

It is not without interest to observe that as little as 4 per cent. of privately owned American-flag ocean-going vessels will benefit from the project, whilst four times this percentage of foreign owned ships will be able to make use of the seaway. All but one of the wartime U.S. standard types of cargo carrier have a draught which will require a substantial reduction in cargo capacity for them to navigate the proposed depth of channel. The American Tramp Owners Association reported that in 1953 1,5000,000 tons of cargo was moved in and out of the Lakes, of this amount only 1,500 tons was carried by American bottoms. Already there is a growing demand for a treaty between the United States and Canada to limit foreign flag vessels from operating between Canadian and U.S. ports. Over the last two years foreign flag sailings to Great Lakes ports have trebled reaching 320 in 1953.

As an indication of European thought ; the recently built Dutch motorship *Prins Willem George Frederik* (A. Veder) has been constructed so that she can be cut in two and lengthened thereby almost doubling her draught and deadweight capacity.

On the overall picture Canada's belief in the seaway is deep and abiding. Across the border the Senate Committee on Foreign Relations has taken the view that " anything which increases the prosperity of a large portion of the United States will inevitably increase the prosperity of the whole nation ".

OUR COVER STORY

The photo on our cover this month, was taken from the Norwegian destroyer " Bergen " at Kristiansand, durring the combined British, Norwegian and Danish naval manoeuvres. The ship in the middle distance is the Norwegian frigate " Arendal " which was formerly one of the British " Hunt " class destroyers. The photograph was taken by Mr. Laurence Dunn.

French model yachts are just as wayward as our own

with the French M

written and photographed

Of Enghien-les-Bain, the guide book merely says "Enghien-les-Bain is a spa a few miles to the North-East of Paris." But, to model yachtsmen, it is much more than a spa, for Lac d'Enghien was, in 1912, the scene of the first international model yacht race ever held, and it was because of this that, while on a visit to Paris, I just had to make the short journey. Set in really beautiful surroundings, the lake is only suitable for open water sailing and, as a model yacht lake, has fallen into disuse. In its heyday, the clubs had the use of the water on Sunday mornings for a modest half crown per club, and this fee, I understand, included the use of row boats We, both French and English, owe much to Mr. Daniels, who took part in that historic race in 1912; for his efforts there and elsewhere laid the foundations of the sport as we know it today.

There is a lack of good sailing waters in France—no lake being specially made as are some of ours—but the Frenchman does not let that interfere with his sport, as, for instance, at Rheims, where the club (Yacht Club Foyer Remois) sails on the local canal, hazarding their frail craft—many have balsa hulls—amongst the outsize barges using the canal. Not the best of conditions for encouraging model yachting, yet here is a club of more than 50 members. It is the newest club in France and is still growing. Enthusiasm runs high in this club and they often make visits to other clubs even

The lake at Enghien-les-Bain, venue of the first international yacht race in 1912

Under starter's orders at Versailles

though the distances to be covered are greater than in England. Here I write from first hand knowledge, for while on a short visit to Rheims my wife and I were invited to stay the night and return to Paris next morning (a Sunday) by coach. Skippers, mates, boats and families piled into the coach and left at 5.0 a.m. Families ? Yes, the French model yachtsman makes his sport a real family affair. Song, story, food and champagne were the order of the day on the journey, and as a compliment to the English visitors, "Tipperary" was sung with great gusto. But once on the lakeside at Versailles, which was reached at 9.0 a.m., the serious business of model yachting began.

As at home in England, we found the French have their troubles, two of them being weed on the pond and lack of wind. And the Grand Canal had a particularly fine specimen of weed on the surface; but willing hands were at work (one chap had been there since 6.0 a.m.) clearing enough to make a start in racing. But it was 1.0 p.m. before the officials, M. Boussy and M. Bleveau were able to get the race for the C.O.B. Cup under way. The wind was light, westerly and veering, but with 28 boats from the visiting club, something had to be done, and though the conditions were not the best the first four boats were away and the remaining eight groups followed quickly. Only one lady skipper took part; Mlle Raux, of Rheims, who is surely the only one in France, for I heard of no others. Prizes did not come her way, but her ready smile and charming manner were always to the fore.

The writer once heard it said that the Frenchman is more of a pondside critic than an actual model yachtsman, but the C.O.B. Cup race belies that—36 yachts entered and sailed. Yes, he is a keen critic, but he also keeps his eye on the prize list. And, as the result of this race shows, the juniors are being trained in the right direction.

Prize winners were as follows:—

Cup and 1st Prize	*M. Vassart, Jnr.*	...	*C.O.B. Club*
2.	*M. Benardin*	...	*M.Y.C.P.*
3.	*M. Frot* ...	...	*M.Y.C.P.*
4.	*M. Jean Vassart*	...	*C.O.B.*
5.	*M. Vassart, Snr.*	...	*C.O.B.*
6.	*M. Ricoer* ...	...	*M.G.T.*
7.	*M. Auger, Snr.*	...	*M.G.T.*
8.	*M. Auger, Jnr.*	...	*M.G.T.*
9.	*M. J. C. Cheret, Jnr.*		*Rheims*

Without doubt, the French 1-metre class is the most numerous, mainly for two reasons: (1) the yachts are easily transported, average displacement being 8 to 10 lb.; (2) The lack of skilled designers. Many of these yachts are designed in the hope that the rule will fit the boat ! In most cases they do fit into the rule, and there are some very pretty yachts. Two that I saw were all-aluminium hulls, one beaten out with no seams and the other only seamed on the

keelson. It is only fair to add that their builders are skilled metal workers in the Renault car factory sports club, of which the C.O.B. is a unit. With no restrictions on beam (this varies from 8 in. to 12 in.), displacement or methods of construction, there is plenty of scope for those who like to try their hand at designing. Sail area is about 540 square inches, battens being fitted full width of both sails. Due to the energies of M. Cheret, in Rheims, and M. Boussy, in Paris, there is a growing number of M-Class. Since returning home the writer has learned that a suggestion has been made that it might be worth trying to raise a team of M's to sail against the French clubs, in Paris. I can assure the visitors, if the scheme materialises, they will thoroughly enjoy themselves and will meet some very fine sportsmen.

All the clubs in the Paris area (M.G.T.; C.O.B.; M.Y.C.P. and the Versailles Club) use the same sailing water, and enter each other's races regularly. Two sailing waters are used, the Grand Canal, at Versailles, and the lake at Parc du Sceaux. And once a year the ornamental lake in the Tuileries Gardens is used for publicity purposes.

I cannot close without saying a special "thank you all" to the grand folk in Rheims and Paris who helped to make possible this story. Their hospitality is something that my wife and I can never forget. To them all our good wishes for the future of model yachting in France.

odel Yachtsmen

by **J. W. METCALF**

A concours d'elegance of model yachting at Versailles

Left : Mlle. Raux of the Rheims club; she is probably the only lady skipper in France

Away on the beat

Left: Spectators at one of the model yacht races on the Grand Canal Versailles

BY ALEC A. PURVES

Starting a Ship

MANY of our readers are already members of old-established ship model societies, while some, owing to business or domestic circumstances, are unable to join their local organisation. We know for a fact, however, that there are many keen ship modellers in town and country who would dearly like to enjoy the benefits of a society in their district, but are denied this pleasure because of the lack of its existence.

During the last twenty years Lt. Commdr. J. H. Craine (known to many of our readers as "Jason") has successfully founded many societies in various parts of Great Britain, while some have been formed by other enthusiasts. For the benefit of those who are keen to have a local society, may we, perhaps, repeat "Jason's" frequent advice—"Why not start one yourselves?" But, perchance, you will reply that, first, you don't know how to set about it and, secondly, you have not the time to devote to it. Well, these difficulties are not so serious; we will show you how, and really it does not take so much time as is imagined.

Let us suppose that you are a lone modeller in a small town, not knowing any other fellow workers (although there may well be one living only a few doors away), but with sufficient enthusiasm to make a start. The first step is to write a letter to each of the local papers—daily, evening, and weekly—asking that anybody interested in making ship models should communicate with you, with a view to forming a local society (if you already know two other modellers, the letter can take a slightly different form stating that a preliminary meeting is to be held giving time and place). Having obtained we trust a few names the next step is to call a meeting at, say, your home; if the number of "nibblers" warrants it the meeting could be held in a local cafe by arrangement with the owner or at the local library—the librarian is usually awake to the educational value of our hobby, and his interest and help are generally forthcoming.

If you have a minimum of three people (or even only two) the society is founded, with chairman, secretary, and treasurer (all "for the time being") all ready to hand; these three can share the work and so the "shortage of time" problem is largely solved.

Certain things should be decided at this first meeting; the name of the society, which can be the . . . Ship Model Society, or Nautical Research Society, as you choose; how often meetings are to to be held—once a month, on some regular day, will probably be satisfactory to start with; some sort of temporary subscription to cover initial expenses, say half-a-crown each into the kitty, to be reviewed when you have some idea of how things work out; something to talk about—for the first few meetings there will be plenty, especially if each member will bring along a model, finished or unfinished (particularly the latter). It is a good idea to notify the Press of the society's progress; they will not publish every report, but something will probably appear, especially if you can get a reporter to come along to an early meeting—and make a point of having several models on view that night.

Naturally you will send a report to the editor of SHIPS & SHIP MODELS, and this will ensure publicity being given to the new society; a model or two in a local shop window, with a card giving some particulars, will help to bring your activities to the notice of fellow residents.

Let us assume that the society has now been successfully launched, and is beginning to make headway. The early meetings, with the founder members discussing their models, are now developing, as a few new members come along, and the need is apparent for some kind of fixed programme, with a main topic for discussion. If possible a season's syllabus should be attempted, allowing for about ten monthly meetings (omitting July and August); the choice of speakers will depend to some extent on the abilities of members, but even beginners can contribute something, and the expert has never finished learning; in fact, he often learns something when giving a talk to less experienced modellers. Here are some subjects to choose from: working to scale; how to read a ship's lines; hull making (carved, bread-and-butter, ribbed and planked); jigs and gadgets—quick ways of tackling awkard or repetition jobs; deck details: masts, yards, and rigging; flags and signals; "100 ft. to the in." miniatures; scenic models; tea clippers; vanishing coastal craft; working models (various aspects); demonstrations of soldering or painting; the use of bristol board; planking a deck; choice and uses of timbers; display of members' photos, books, and plans; talks on specific periods or types of ships (e.g. Roman, medieval, Tudor, Brixham trawlers, Chinese junks, windjammers, ships lifeboats—this series is unlimited).

As soon as the membership justifies asking an

outside speaker, this should certainly be tried, provided the location is within reach ; when making such a request, always enclose a stamped addressed envelope and make it clear that the society will be pleased to defray travelling expenses (although you will find that frequently this offer is kindly refused, nevertheless it should be made). Not only ship modellers, but others with a knowledge

Model Society

and love of ships and the sea can be of great help ; the old retired master mariner, the marine artist, the model engineer, the collector of nautical prints or books, and many others, professional and amateur, can provide an interesting evening; but speakers with a subject having a direct bearing on practical work or research should be in the majority. One London society used to plan its year's programme in the following proportions: four talks by its own members; four by outsiders (often members of other London societies); two evenings devoted to such items as members' photographs, display of the year's work (usually in December and following the short annual general meeting), brains trust or competition quiz, ten-minute papers, display of jigs and gadgets, and so on.

Activities should not be confined to the monthly indoor meeting. There will probably be keen support for outside activities, and those societies within easy reach of the coast or an estuary are indeed fortunate. It is usually easy to arrange a visit to a small shipyard, provided one of the management is sufficiently sympathetically inclined to give up a Saturday afternoon or a Sunday to our interests. Docks and wharves, with visits to ships (particularly small coasters and other small craft), lighthouses, coast-guard stations, local inns possessing ship models—these are all interesting places, and, of course, museums or (rather rarely) private collections should be visited. A word of warning to organising secretaries : find out fairly definitely how many are likely to turn up *before* approaching the proposed " subject," then reckon on about half that number, until such time as experience proves otherwise. Not that members lack enthusiasm, but time and time again it happens that, for a variety of reasons, Tom, Dick, and Harry (who were " dead certs ") find that they cannot make it. Some of our most successful museum visits, however, have been those to which only about four turned up—it is so much easier for four to discuss, criticise, and argue about a particular exhibit, than it is for twenty.

Now a word about the growth of the society. It is far better to develop slowly, provided a steady increase is maintained. For the first year, provided you can get up to nine or ten without much effort, it is advisable not to press for too much publicity, at least as far as obtaining new members is concerned. If five or six new members join, *and stick*, every year for, say, five years, this will usually mean a better society than one which starts off with thirty members of various interests and experience, several of whom drop out after a few months because their particular subject has not been catered for, At the " Model Engineer " Exhibition there has been for many years a stand devoted to the interests of ship model societies in general, staffed by the London societies but for the benefit of the movement all over the country. Here many potential new members are secured from conversations, queries, and arguments, names and addresses are logged in a book, and these are forwarded to the nearest societies (where such exist) within reach of the enquirer. Experience has varied as regards the results, but the writer has found that for several years running his society received about twenty names, of which about eight or nine responded to a letter of invitation, and of these at least five or six *each year* have " stuck." In addition, two or three new members have joined each year from other sources, such as friends of members, letters to the Press, newspaper reports, and (once at any rate) from a direct enquiry at the town hall by a newcomer to the district.

A very useful method of publicity is the staging of a club exhibition, either independently or in conjunction with a neighbouring ship model society, model engineering or yacht society, or as an adjunct to a hobbies and handicrafts display. A society has to be pretty strong to provide enough models to stage its own show (although this is undoubtedly the ideal to aim at), but in the meantime the " combined " show or offer of assistance at some allied function, can enable the young society to be brought to the public notice. At these functions it is a good idea to include a variety of exhibits—not only finished models of high quality, but unfinished items such as hulls, deckhouses and fittings, demonstrations (these always go well, especially rope-making) and beginners' models to encourage other beginners ; plans and photos too can help to fill up the stand. A rota of two or three members at a time can provide stewards, not only to prevent small boys from turning every steering-wheel and propeller, but also to answer, and indeed invite, questions from any apparently interested visitor.

The contacts with other societies need not be limited to exhibitions. Exchange of visits is both beneficial and enjoyable, even if it means having a Saturday or Sunday meeting, while the same idea can occasionally be used with model engineering, model yachts, and radio control societies ; model railway people, too, can often be most helpful, and may provide some useful tips on painting, small scale soldering, etc.

As the society grows, a slightly more formal method of organisation will be required. For the first year probably two of you will have run the whole thing, but in time you will feel the need of a small committee. There is not a lot for them to do, but while very few societies run on formal lines, nevertheless several heads are better than one, and responsibilities and difficulties shared are made much easier. A committee of chairman, secretary, treasurer,

and two others (to be added to later, if need be), meeting quarterly, will probably fill the bill. If you have not already defined the society's aims and made some simple rules, these should be dealt with at the first annual general meeting. The aims should be simply expressed, in some such wording as : "To provide facilities for meeting and discussing matters pertaining to ships and the sea, and to encourage accuracy and improvement in the standard of ship modelling." The rules should also be simple—they can always be revised later in the light of experience ; incidentally, the amount of the subscription should not appear in the rules ; this should be determined by the committee, and may have to be altered as circumstances dictate. It would be a nuisance to have to call a general meeting for alteration of rule 7b every time an increase in subscription is necessary. Naturally the amount of the subscription will vary, according to what expenses arise. Most societies range from five shillings a year (where a meeting place can be found free of charge) to ten shillings a year. Some, providing a greater degree of comfort, may cost more. Those who can provide a cup of tea and biscuits, organised by the members, at a small cost, will find it not only a useful source of income, but a warm and welcome break in the evening's programme.

There is no limit to the ultimate scope of the society's activities ; much will depend on the members. In due course a library can be instituted ; a magazine can be produced (as evidenced by the fine recent production of the Wembley S.M.S.—*The Sheet Anchor*) ; a Corresponding Members section can be formed ; in time, it might even be possible for a society to own or rent its permanent headquarters (floating or otherwise), or at any rate obtain the use of a room in such circumstances that it is possible to put up permanent exhibits, photos, or a "museum." However, these are plans for the future ; in this article we are really only concerned with the early days. We hope, naturally, that several new societies will be formed, but if only one emerges *and survives*, our efforts will not have been in vain. So, lone modellers, go to it, and good luck.

TOPICAL DIGEST

Ship Construction Rules Amended

Behind some important amendments to the construction rules for new dry cargo ships and tankers, which Lloyd's Register of Shipping have applied from December 15th, 1954 is a recognition that stresses may cause fatigue in ships just as they do in aircraft.

A panel appointed by the general committee of Lloyd's Register recommended amendments to the construction rules to reduce the risk of cargo ships and tankers breaking in two in heavy weather. These amendments were recently approved by the committee. They will apply henceforth to new ships, the plans for which are submitted to Lloyd's Register for approval. Broadly, they will make necessary an increase in minimum longitudinal scantlings, which are based on dimensions, to take account of the effects of modern design on cargo distribution and speed. The object of this, it is stated, is to maintain the same standard of longitudinal strength for all types of dry cargo ship. It will apply irrespective of the manner of construction of the hull.

The amendments also make necessary much greater use of approved notch-tough steels for the main structure of welded ships. A limited use of these steels was introduced into the rules in 1950. The extended provision of special quality steels in welded dry cargo ships will apply also to tankers.

Voyage Round North America

The Royal Canadian Navy Arctic patrol vessel, "Labrador" (6,500 tons), has returned to Halifax—the first warship ever to circle the North American continent.

The vessel sailed from Halifax on July 23rd last and ploughed through the polar ice of the North-West Passage along a route previously taken by the Royal Canadian Mounted Police Schooner, "St. Roche".

The commander of the "Labrador," Captain Robertson, said when he reached Halifax that the North-West Passage could be used by cargo vessels, provided they had an ice-breaker escort. The route, however, would not be possible for liners, he added.

Cruises to Spain

Opportunities for holidays in Spain, spending nine days ashore, are offered by Royal Mail Lines, travelling in their 23,000-ton "Alcantara," this year.

Two cruises are planned, from July 16th to August 1st, and September 24th to October 9th, sailing from Southampton in each case. Although the "Alcantara" will carry only saloon passengers for her round voyages, she has third class accommodation which will be made available to those desirous of sailing on these special cruises.

On both cruises they will disembark at Cadiz but in the first case they will return from Malaga and on the second cruise from Ceuta, for the homeward passage to Southampton. Third class return fares will range from £20 to £24 according to cabin or dormitory accommodation chosen.

Canadian Navy Stronger

The Canadian Navy Department announced recently that its strength increased by nearly 2,000 officers and men to 18,800—a record in peacetime. Twenty-five new and converted ships joined the active and reserve fleets during the year. Canadian warships visited more than 30 countries in the course of operational trips and training cruises to all six continents of the world.

There now are 49 ships in commission, an increase of nine over 1953. They include an aircraft carrier and two cruisers. The navy also has another 53 ships in reserve, 25 of which have been modernised and most of the remainder are in process of modernisation.

Under construction are an aircraft-carrier and sixty other vessels. From March, the Royal Navy will base a squadron of three submarines on Halifax to provide more training facilities for Canadians. About two hundred Canadian sailors, all volunteers, will serve either with the squadron or in other British submarines. The first draft of Canadian trainees left for Britain in November.

The Navy is also strengthening its air arm.

Admiralty Tests with Fibreglass Boats

The Admiralty are continuing experiments with fibreglass boats. A 20 ft. motor dory has been undergoing sea trials for some time. A more complicated boat—a 25 ft. ship's motor boat—was completed recently and arrangements have been made to test the boat in a seagoing ship.

Drawings of Warships

MINESWEEPERS, THE "ALGERINE" CLASS

BY NORMAN A. OUGH

CONTINUING my series of detailed plans of H.M. ships of the present day, this of an ocean minesweeper is representative of a very large number of vessels of the same type. Of the Algerine class there are 85 ships in commission or in the Reserve Fleet, in the Royal Canadian and Royal Ceylon Navies and in the South African Naval Force. All are alike in design except for minor differences which can be seen in photographs, as, for example, some have Oerlikon guns instead of the 40 mm. Bofors, and a good many have a range-finder on a small tower platform amidships.

This drawing appears bolder and easier to read than the others that have been published. The reason is that as H.M.S. *Marvel* is a small ship, the original could be made entirely to the scale of $\frac{1}{8}$ in.=1 ft. and the necessary reduction to fit the two pages needed to be to only about $2\frac{1}{4}$ of its length. It would be quite easy to make a model to any scale from it by reading from the scale of feet on the reproduction to any convenient scale of feet on a ruler or strip of paper suitably divided. A general arrangement drawing such as this however, does not contain enough information for a detailed model, so a second sheet showing the lines and a scheme of plating, and detail of the boats, armament and elevations of the back and front of the bridge will be published next month. In *Model Ships and Power Boats*, an important description of a model of an Algerine class minesweeper, including the calculations for displacement and stability, details of the method of construction of the hull in metal, and of the machinery for electric drive for the twin screws and radio control, was published in April, May, June, and July, 1952. The articles were by Lieut. G. C. Chapman, R.N. who served in one of these ships for two years, and who built the radio equipment and parts of the model which was shown working at the M.E. Exhibition in 1950, and on the stand at the *Daily Express* National Boat Show in January. My drawing has been based on his, the detail being added from photographs that I took on board H.M.S. *Marvel* at Portsmouth in July, 1954. The lines and profile of my drawing are slightly different from those of Leiut. Chapman's, as these were based on the assumption that the length over all of the ship was 225 feet. In the published figures, this is the length between perpendiculars, the length over all being 235 feet. The addition of the missing ten feet has resulted in "easier" lines and a slight increase of displacement.

Although it is over 400 years since the invention of the submarine mine, happily the evil genius of humanity failed to make it a fully effective weapon until 1904, when it caused devastation in the Russo-Japanese War. The inevitable counter-measure, the minesweeper, was introduced into the Royal Navy in the form of steam trawlers, adapted for the work in 1907. In 1914, it was the fishing fleet that first swept the German mines from the East coast, the heavy casualties among them amounting to the loss of a ship every week. In 1915, the first regular war-built sweepers, the "Flower" class, appeared, and by the end of the war, the minesweeping flotillas had been expanded to over 1,000 ships, based on 51 ports throughout the world.

The war years 1939-45, produced new types of mines, including the magnetic and acoustic, and sweeping was made more difficult by having to deal with combinations of these as well as the moored mine. The task of clearing them was divided among ships of three classes; small ships for harbours and entrances, slightly larger ones for the shallow coastal areas, the deeper water being assigned to the ocean minesweepers—the Algerines. With the end of the war, our forces diminished, but in 1951, when the cold war intensified great attention began to be given to our defences, and the first priority was mine sweeping, the mine being at that time regarded as the greatest single threat to the safety of the nation. The Inshore Flotilla of minesweepers based on Harwich is a most active part of Britain's contribution to the naval forces of N.A.T.O.

In appearance, the Algerines are, compared with the ugly Loch and Castle class frigates, quite elegant small warships. They would have looked really fine if the transom had been rounded and given a rake aft, and if a fashion plate had been fitted to cover the sudden drop from the end of the forecastle to the upper deck. A slightly larger and taller mainmast raked parallel with the tripod would have completed what has the makings of a fine profile, but in spite of this, as seems appropriate for ships that have to carry out the awful dangerous drudgery of minesweeping, their appearance has the great characteristic of staunchness.

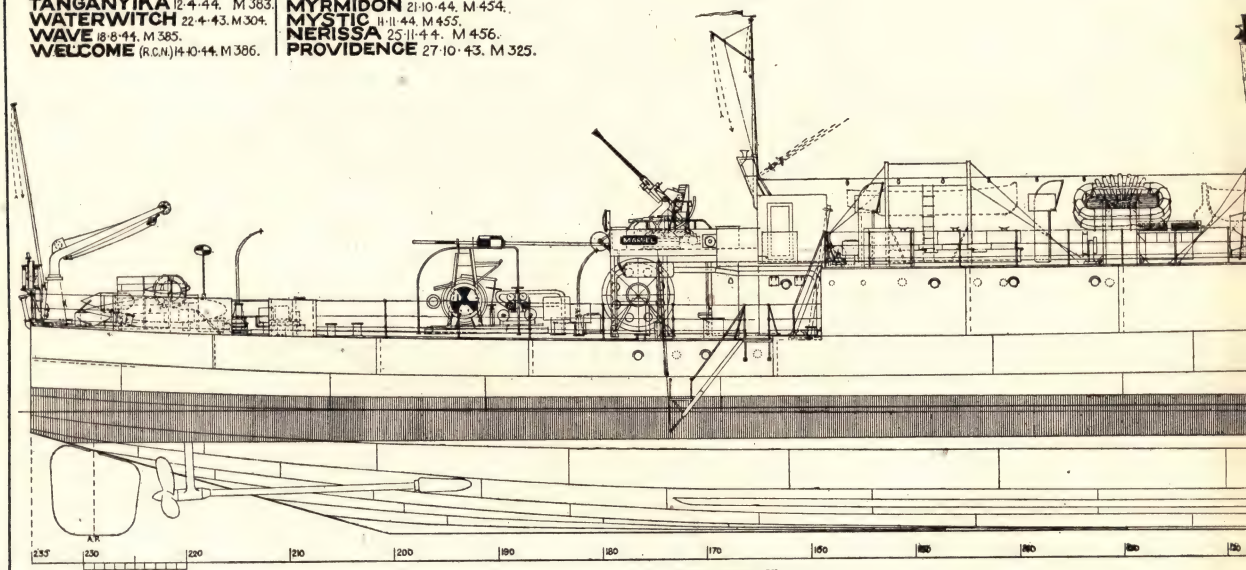
H.M.S. MARVEL OCEAN MINESWEEPER, ALGERINE CLASS. 1941-45

THE FOLLOWING IS A LIST OF SHIPS OF THE "ALGERINE" CLASS WITH PENDANT NUMBERS AND DATES OF COMPLETION.

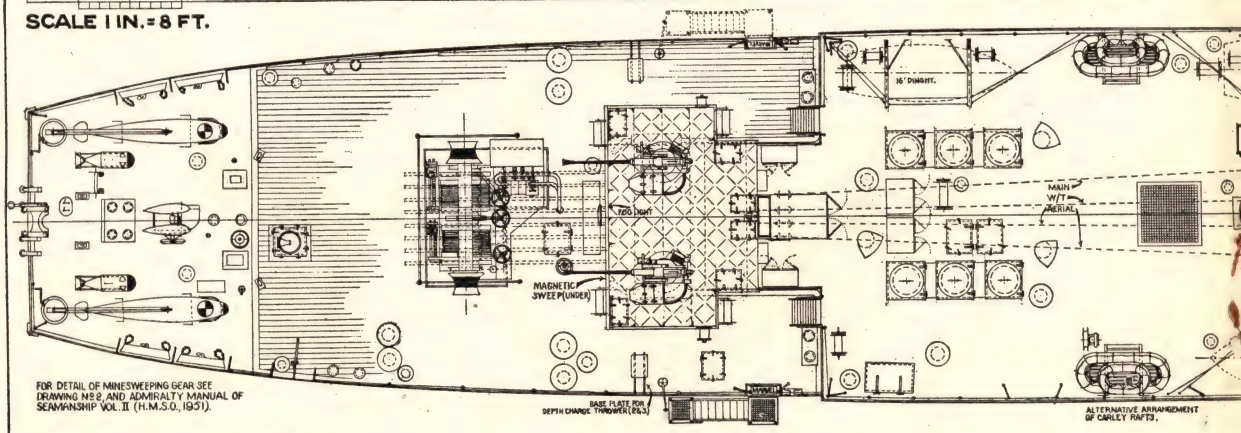
FANCY BLYTH S.B.& D.D.CO. 2-11-43.
COCKATRICE FLEMING & FERGUSON, 10-4-43. M 29.
HARLAND & WOLFF.
ALBACORE 16-6-42. M 01.
CHAMELEON 14-9-44. M 387.
CHEERFUL 13-10-44. M 88.
ESPIEGLE 1-12-42. M 216.
HARE 10-11-44. M 389.
JEWEL 20-7-44. M 390.
ONYX 27-10-42 M 221.
PICKLE 3-8-43. M 293.
PINCHER 19-8-43. M 294.
PLUCKY 29-9-43. M 295.
READY 11-1-43. M 225.
RECRUIT 26-10-43. M 298.
RIFLEMAN 25-11-43. M 299.
RINALDO 20-3-43. M 225.
ROSARIO 3-4-43. M 219.
SPANKER 20-4-43. M 226.
LÖBNITZ S.B. CO.
BRAMBLE 26-1-45. M 11.
FIERCE 11-9-45. M 53.
HOUND 29-7-42. M 307.
HYDRA 29-9-42.
LENNOX 15-10-43. M 276.
ORESTES 25-10-42. M 277.
ROWENA 5-6-44. M 384.
STORMCLOUD 28-12-43. M 367.
SYLVIA 28-2-44. M 382.
TANGANYIKA 12-4-44. M 383.
WATERWITCH 22-4-43. M 304.
WAVE 18-8-44. M 385.
WELCOME (R.C.N.) 14-10-44. M 386.
PORT ARTHUR SHIPYARDS.
LYSANDER 1-11-43. M 379
MARINER 9-5-44. M 380.
MARMION 15-6-44. M 381.
ORCADIA 8-8-44. M 462.
OSSORY 3-10-44. M 463.
PLUTO 21-10-44. M 446.
POLARIS 13-12-44. M 447.
PYRRHUS 19-5-45. M 448.
ROMOLA 19-5-45. M 449.
ROSAMUND 20-12-44.
REDFERN CONSTRUCTION CO.
COQUETTE 24-11-43. M 350.
COURIER 22-12-43. M 49.
GOLDEN FLEECE 29-2-44. M 376.
JASEUR 19-4-44. M 428.
LAERTES 23-3-44. M 433.
LIONESS 15-3-44. M 377.
MÆNAD 8-6-44. M 435.
MAGICIENNE 24-6-44. M 436.
MANDATE 9-8-44. M 438.
MARVEL 30-8-44. M 443.
MARY ROSE 5-8-44. M 380.
MELITA 8-12-42. M 289.
MICHAEL 20-11-44. M 444.
MINSTREL 5-10-44.
MOON 2-9-43. M 329.
MYRMIDON 21-10-44. M 454.
MYSTIC 11-11-44. M 455.
NERISSA 25-11-44. M 456.
PROVIDENCE 27-10-43. M 325.
SEABEAR 11-6-43. M 333.
SERENE 8-10-43. M 354.
SKIRJACK 7-4-43. M 17.
THISBE 12-4-43. M 302.
TRUELOVE 8-7-43. M 303.
WELFARE 15-7-43. M 356.
FLEMING & FERGUSON.
COCKATRICE 10-4-43. M 29.

ROYAL CANADIAN NAVY: FORT FRANCES (170), KAPUKASING (171), NEW LISKEARD (169), OSHAWA (174), PORTAGE (169), ROCKCLIFFE (173), SAULT STE MARIE (167), WALLACEBURG (172) & WINNIPEG (177).
ROYAL CEYLON NAVY: VIJAYA (M 370).
SOUTH AFRICAN NAVAL FORCE: BLOEMFONTEIN (M 439) & PIETERMARITZBURG (M 291).

WAR LOSSES: ALGERINE, SUNK BY U/B TORPEDO OFF BOUGIE, ALGERIA, 5-XI-42.
BRAMBLE, SUNK BY GUNFIRE, BARENTS SEA, ARCTIC, 31-XII-42.
LOYALTY, SUNK BY MINE OR U/B TORPEDO, ENGLISH CHANNEL, 22-VIII-44.
REGULUS, SUNK BY MINE IN CORFU CHANNEL, GREECE, 12-1-44.
SQUIRREL, DAMAGED BY MINE, SUNK BY OWN FORCES, OFF PUKET, SIAM, 24-VII-44.
VESTAL, SUNK BY A/C OFF PUKET, SIAM, 26-VII-44.



SCALE 1 IN. = 8 FT.


16' DINGHY.
MAIN W/T AERIAL
MAGNETIC SWEEP (UNDER)
BASE PLATE FOR DEPTH CHARGE THROWER (D.C.T.)
ALTERNATIVE ARRANGEMENT OF CARLEY RAFTS.

FOR DETAIL OF MINESWEEPING GEAR SEE DRAWING NO 2, AND ADMIRALTY MANUAL OF SEAMANSHIP VOL. II (H.M.S.O., 1951).

THIS DRAWING SHOWS THE APPEARANCE OF THE SHIP ON JULY 31, 1954.

5 PROGRAMME.

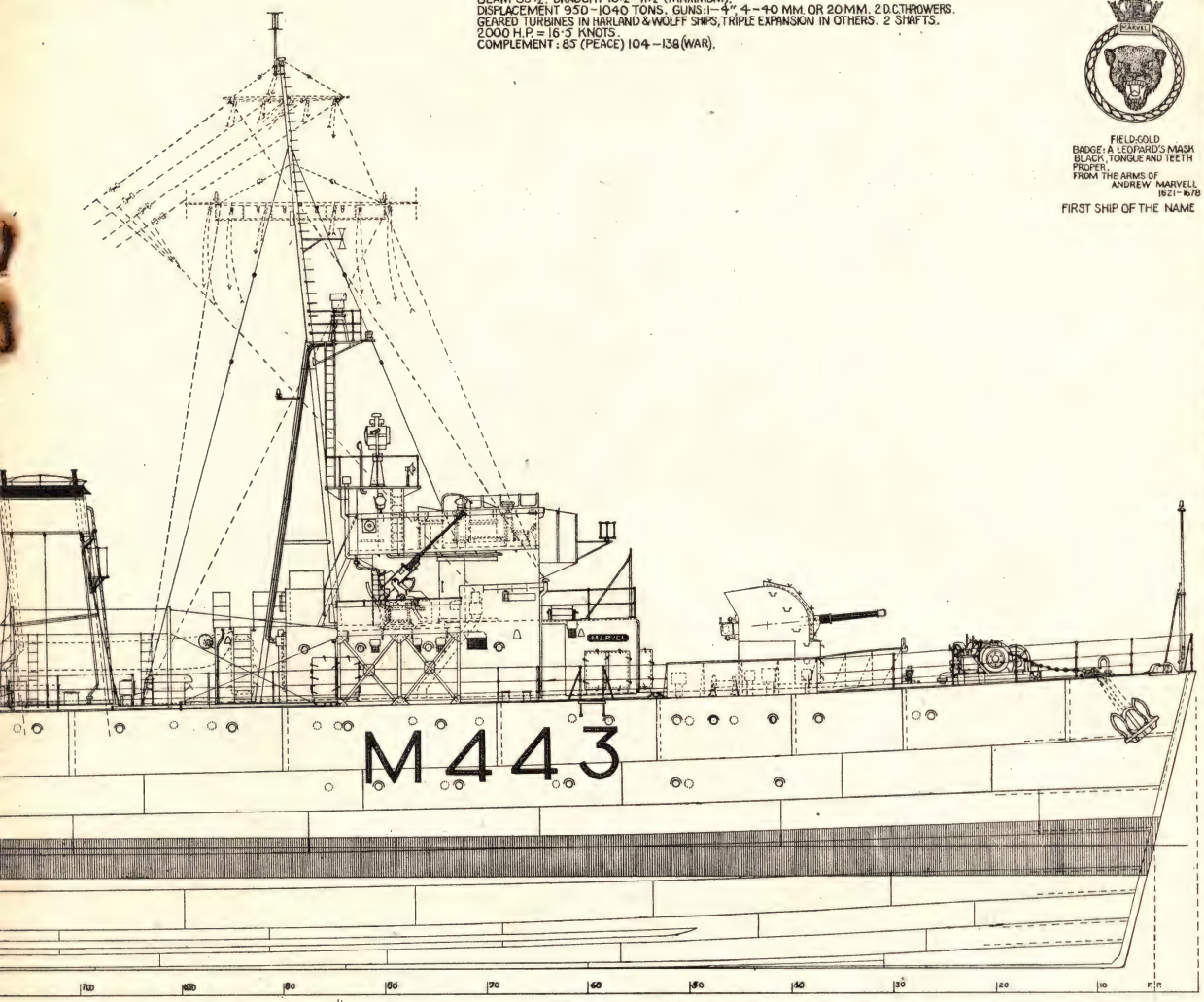
DRAWING Nº 1

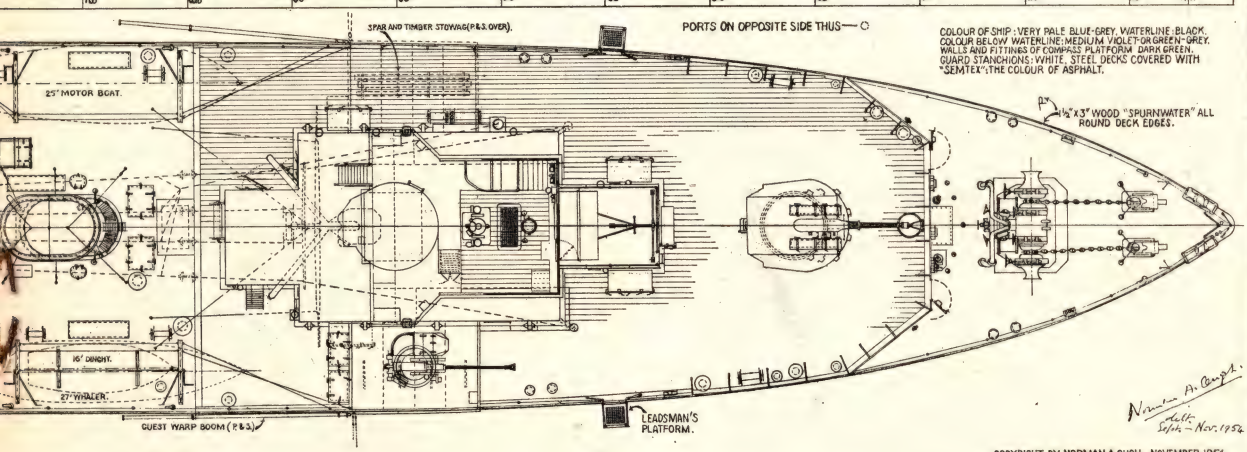
FOR "LINES" AND DETAIL OF FITTINGS SEE DRAWING Nº 2.

LENGTH BETWEEN PERPENDICULARS 225'. LENGTH OVER ALL 235'.
BEAM 35½'. DRAUGHT 10¾'–11½' (MAXIMUM).
DISPLACEMENT 950–1040 TONS. GUNS: 1–4" 4–40 MM. OR 20 MM. 2 D.C. THROWERS.
GEARED TURBINES IN HARLAND & WOLFF SHIPS, TRIPLE EXPANSION IN OTHERS. 2 SHAFTS.
2000 H.P. = 16·9 KNOTS.
COMPLEMENT: 85 (PEACE) 104–138 (WAR).

FIELD: GOLD
BADGE: A LEOPARD'S MASK BLACK, TONGUE AND TEETH PROPER.
FROM THE ARMS OF ANDREW MARVELL 1621–1678

FIRST SHIP OF THE NAME

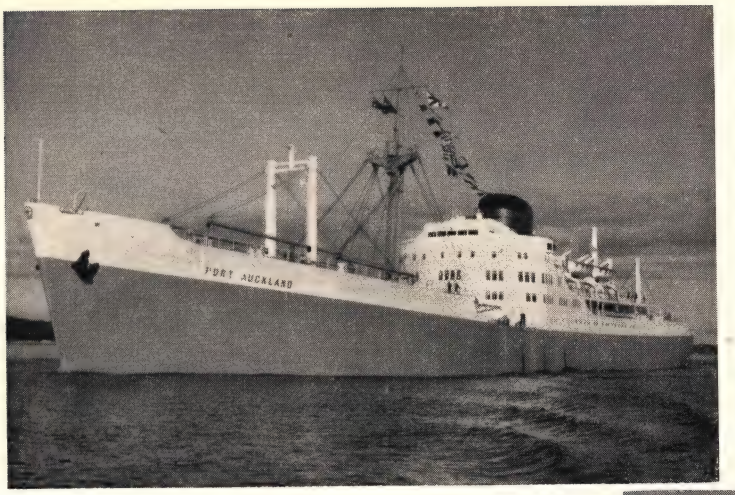



SPAR AND TIMBER STOWAGE (P&S OVER).
PORTS ON OPPOSITE SIDE THUS — ○
COLOUR OF SHIP: VERY PALE BLUE-GREY. WATERLINE: BLACK.
COLOUR BELOW WATERLINE: MEDIUM VIOLET OR GREEN-GREY.
WALLS AND FITTINGS OF COMPASS PLATFORM DARK GREEN.
GUARD STANCHIONS: WHITE. STEEL DECKS COVERED WITH "SEMTEX": THE COLOUR OF ASPHALT.
25' MOTOR BOAT.
1½" x 3" WOOD "SPURNWATER" ALL ROUND DECK EDGES.
15' DINGHY.
27' WHALER.
GUEST WARP BOOM (P&S).
LEADSMAN'S PLATFORM.

Norman A. Cough
Hull
Sept.–Nov. 1954

COPYRIGHT BY NORMAN A. OUGH, NOVEMBER 1954.

Auckland's



Left: "*Port Auckland*" *leaving Auckland fully laden*

Below: "*Wairata*" *on N.Z.-Calcutta service*

HOW does one travel by sea to Singapore, Vancouver, or for that matter, to any other port overseas? I write this in the hopes that others might be able to follow up with other articles on shipping services in their part of the world. Just imagine the diversity of subject matter with the wide range and types of craft calling at ports like Colombo and Calcutta—and surely Russia possesses a mercantile marine! We hear practically nothing from that quarter. Also, why should not vessels serving on the two American continents be mentioned more often in English nautical journals?

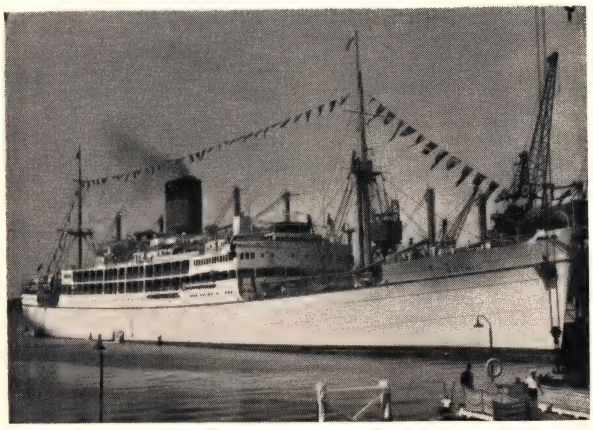
Let us, in SHIPS AND SHIP MODELS, have not only a balanced diet, but some tropical dishes for variety as well. So here we are, away down in the Antipodes—once a popular term—New Zealand has grown since it was coined; at Auckland, the largest port of the Dominion, situated on the shores of the Waitemata Harbour.

The city was founded in 1840 and from that year, when little more than Maori canoes were paddled up to the beaches, progress has advanced at such a rapid pace that now almost 3,000,000 tons of cargo pass through the port annually in the form of imports and exports. Further wharves and equipment are being provided for future expansion but let us see what ships are tying up at the Port of Auckland today.

The most frequently seen vessels are those of the Union S.S. Co., which concern owns some seventy passenger and cargo vessels. Their *Tofua* and *Matua* run a frequent service to Fiji, Tonga and Samoa. A round the Islands trip on the former is most popular with New Zealanders, especially in winter, the voyage taking three weeks. The only other Union Company's passenger vessel out of Auckland is the *Monowai,* on the Tasman run to Sydney but often Wellington is the port of departure.

The *Waitemata*, *Waihemo*, *Wairuna*, *Waikawa* and *Waitomo*, with limited passenger accommodation run periodically to the Pacific coast of North America via Papeete and sometimes Rarotonga. Also carrying a few passengers are the *Wairata* and *Wairimu* trading to Colombo and Calcutta via Singapore and Rangoon. Other Union Company cargo ships run regularly to South Island ports, some being permanently engaged on the coal trade to Auckland from Greymouth and Westport.

A company which once ran a great fleet of coasters on the northern coast is the Northern S.S. Co. All their passenger steamers have long been scrapped leaving only wooden auxiliary craft in a much reduced trade through the inroads of road and rail traffic. In recent years, however, a number of fine motor coasters like the *Tainui*, *Hotonui* and *Ratanui* have been purchased from Europe. Other small concerns also run some quite smart craft on



Right: "*La Hacienda,*" *Buries-Markes m.v. at Auckland*

Left: *The* "*Gothic*" *at the time of the Royal Tour of the Commonwealth*

Shipping

BY CLIFFORD J. HAWKINS

Funnel of Swiss " Allobrogia " at Auckland

the coast, one of particular note being the Gisborne Sheepfarmers' Co-op. Co's *Turihaua*.

Returning to deep water, the major companies using Auckland are pioneers in the trade, the Shaw Savill & Albion and the N.Z. Shipping Company with its subsidary, the Federal Steam Navigation Co. What finer liners are there in the Home trade other than the new *Rangi* types and *Ruahine* ?

The Port Line vessels, too, have long graced this port and that company's streamliners *Port Auckland* and *Port Brisbane* are perhaps the most distinctive visitors.

The Blue Star Line came into the New Zealand trade only when it was fully developed—in the 1930 period—and their beautiful motor ships make a fine sight at any time with their huge squat funnels.

As in any other large port, there are of course the tankers and those of the Shell, British Petroleum, Caltex and Standard-Vacuum (Stanvac) Oil Companies are frequently to be seen, as well as the most modern Norwegians under charter.

" Oronsay " inaugurating the near Pacific service of the Orient Line

a pleasant trip on a ferry to any of the North Shore suburbs.

In the harbour there might be an Andrew Weir ship with sulphur from Texas or a Japanese, like the *Meiwa Maru*, a fast turbine cargo ship connecting New Zealand with Yokohama. Then there have been time charter vessels. The Norwegian *Vilja* and *Vito* which spent some three years on the Nauru phosphate run. The Chinese Nationalists' " Union " vessels that, owing to objections of foreign intrusion in trade which concerns New Zealand, have lost the sugar charters from Fiji and Queensland. From New York, at times, come the Ellerman " Cities." The Atlantic seaboard is also served by smaller units of the N.Z. Shipping Co. and the Port Line. From Europe come the Asiatics, modern vessels like the *Malacca*, the Wilhelmsens, Swedish transatlantics and an occasional surprise like the Swiss *Allobrogia*.

With the recent entry of the Orient Line into the Pacific it is hoped that the big *Orcades* and *Oronsay*, followed by others later, will be regular visitors, although

N.Z. Shipping Co's. M.V. " Rangitata " gets a grand send off

Shiplovers are afforded an excellent opportunity of seeing all these ships as they pass up the harbour or at the wharves, which are, in no instance, at any great distance from the centre of the city. In fact one can step onto the main street from the Queen's Wharf—and all the wharves, except where tankers are berthed, are usually open to the public without having to apply for permits. Then, to capture a little more of the life of the port, there is always *Oronsay's* stove pipe poking high above the main funnel caused much adverse comment as to ship design.

Of course, all vessels calling at Auckland cannot be dealt with in an article of this nature but there are two passenger motor ships calling regularly that are worthy of mention, namely the Huddart Parker *Wanganella* in the Sydney run and the New Zealand Government's little *Maui Pomare* in the Rarotonga trade.

"CUTTY SARK"

comes ashore

After nearly ninety years afloat "Cutty Sark" has finally come ashore. That is not to say she has severed her connection with the sea. On the contrary, she is being restored and preserved in order that she may serve as an inspiration to all who take an interest in ships and the sea. Her beautiful lines and perfect proportions will be there for all to see, and the story of her speed and her sailing qualities will be kept alive as long as her tall masts and tapering spars are there to remind us of her past.

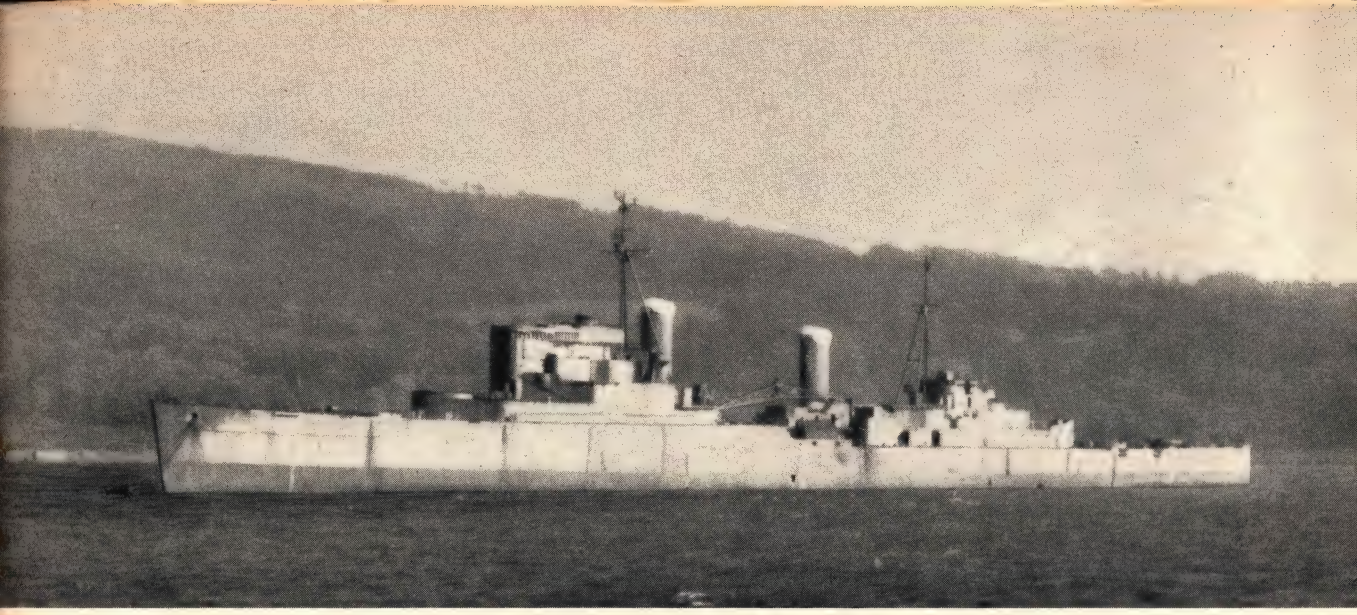
The operation of removing her from her repairing berth in the East India Dock to the new dry dock, specially prepared for her at Greenwich, was carried through without a hitch. The weather conditions were perfect, there being neither wind nor rain. The ship had been lightened to the limit and thus her towage called for delicate handling. She was in charge of the Watkins tugs "Gondia" and "Java"—"Gondia" towing ahead and "Java" sometimes alongside and sometimes astern. The tow was accompanied by the tug "Kenia" which was provided to accommodate the Press and the B.B.C. Incidentally, the story of the Watkins tugs was told in our January issue.

When the ship was in her final position over the blocks in the new dock she received three cheers from a party of 200 officers from the Royal Naval College and the considerable number of invited guests and of the general public which was present.

1 & 2. *Manoeuvring the ship out of East India Dock*

3. *Entering the river*

4. *In tow, up the river, "Gondia" ahead, "Java" alongside*
5. *At Greenwich— "Java" nosing the stern around toward the dock entrance*
6. *Being hauled by winches into the new dock*
7. *Settling down on the blocks as the tide recedes*



The cruiser H.M.S. " Defence " in the Gareloch awaiting completion

Naval Photograph Club

BY P. A. VICARY

THREE Admirals of the Fleet offered battle to the Government in the House of Lords over the issue of a stronger navy. Lord Chatfield, full of fight at 81, said, " There was growing anxiety, especially in the Navy, about the Government's Naval Policy. There has never been a time when the position of the Navy towards its responsibilities was so precarious. We have neither the ships or men, nor aircraft that we need to fulfil our responsibilities. The Russian cruisers were small capital ships of 17,000 tons. They had heavy armoured belts from bow to stern and a speed faster than any other cruisers in the world." Viscount Cunningham of Hyndhope said, " The greatest danger to our sea lines was the surface raider, which the Russian cruisers would be in time of war, and if these cruisers are only reasonably efficient, we have none which could stand up to them with any prospect of success." Lord Fraser of North Cape, whose forces sank the *Scharnhorst* in the late war, said, that within six or seven years we should have no cruisers. He was sure the public did not realise that. The three " Tiger " class cruisers are to be completed as stated in January SHIPS AND SHIP MODELS, and their armament appears to be only a makeshift for training purposes. Our illustration shows the cruiser *Defence* lying in the Gareloch last September. It is imperative that new heavy cruisers be designed and their keels laid, to be able to combat the threat of the Russian cruisers and which could be modified and re-armed if necessary with suitable guided missiles when the scientists have produced one. Incidentally the United States seem to have produced a satisfactory guided missile and are converting the heavy cruisers *Boston* and *Canberra* into guided missile ships. The after gun turrets have been removed and two launching platforms installed and rocket installations for " Terrier " missiles. The *Los Angeles* is also to be converted.

The Admiralty have announced that the *Tiger* will be completed by John Brown & Co., Clydebank, the *Blake* by Fairfields at Govan and the *Defence* by Swan, Hunter at Newcastle-on-Tyne. A new coastal minesweeper the *Litterston* has been launched and the inshore minesweeper *Bedham* has arrived at Portsmouth to go into reserve looking like a miniature " aircraft carrier " ; she has a " roof " over her from stem to stern. The new anti-submarine frigate *Russell* has been launched from Swan, Hunter and Wigham Richardson's yard. The aircraft carrier *Bulwark* has joined the Fleet and she will replace the *Illustrious* as trials and training carrier. The *Illustrious* has paid off at Devonport and is preparing for reserve. The new midget submarine " X51 " is in commission and has been carrying out trials and exercises in the Portland area. The Royal Canadian Navy's ice-breaking patrol vessel *Labrador* has caused some interest by completing a voyage through the North West Passage, and is the first warship to do so. She left Halifax and steamed north and arrived at Esquimalt, taking 27 days.

Salvage awards have been made to the ship's company of H.M.S. *Creole*, which went to the assistance of the Dutch vessel *Unitas*, 364 gross tons. The *Unitas* was carrying a cargo of salt, soda and copper tubes to Sligo, when she struck Tor Rocks near Inishrrahull Island. She was reported in a sinking condition and H.M.S. *Creole* was despatched to render assistance. The *Creole* sighted the *Unitas* at 10 p.m. and she appeared to have a list to port of about 10 deg. and part of her upper deck was awash. The *Creole* secured alongside the *Unitas* and after hose lines had been established, she started pumping immediately. Damage control lighting was provided and stout wires were passed to check any dangerous roll or tendency to increase the list until the *Unitas's* cargo could be shifted to starboard. *Unitas's* hold was flooded to a depth of six feet but *Creole's* pumps could cope with the flooding, and passage to Migilligan was started at slow speed. Off Warren Point a pilot boarded the *Unitas*, and she was berthed at Migilligan. After continuous pumping through the night, *Unitas* was able to proceed to Londonderry on her own.

M.V. "Baltavia" 2,592 tons gross. Built in Scandinavia to U.S. account in 1924

Detail of midship superstructure of M.V. "Baltic Exporter"

No. 14 : THE UNITED BALTIC CORPORATION

FOR many years the cream funnelled ships of the United Baltic Corporation Ltd. have berthed at Mark Brown's Wharf, opposite to the Tower of London, and have become a familiar part of that world-famous river scene. As its name implies, this company has been primarily concerned with the Baltic trade, although latterly, its activities have been extended to include the Mediterranean. It maintains four northern services. One from London, and another from Hull, serve the Polish port of Gdynia, while two others link these two U.K. ports with Finland. Another, known as the Uniclipper Fruit Line, operates between Casablanca and Rouen. Following an agreement with the Hamburg firm of Rob. M. Sloman, Jnr., a new joint service to the Mediterranean was started in May, 1954, the two companies operating on a 50-50 basis. The first sailing of this new enterprise—known as the United-Sloman Mediterranean Line—was made in May of that year by the newly built m.v. *Baltic Merchant*. Fast, electrically ventilated ships are used on this run, outwards from Hamburg, etc., to North Africa and Western Italy, then back to Channel ports with fruit, mostly oranges and lemons.

The United Baltic Corporation Ltd. was formed in 1919, jointly by Andrew Weir & Co., London, and the East Asiatic Co. of Copenhagen. Its present fleet comprises eleven ships.

REFRIGERATED SHIPS

Its three largest units trade to the Baltic and are fitted for the carriage of refrigerated, as well as general cargo. They are the:

s.s. Baltara	**Built 1918**	**3,325 tons gross**	
m.v. Baltavia	**,, 1924**	**2,592**	**,, ,,**
s.s. Baltrover	**,, 1949**	**2,179**	**,, ,,**

The first named, the oldest in the fleet, is a C type standard ship of the first world war, measuring 331 ft. in length b.p. by 46.7 ft. beam. An oil burner of 4,592 tons d.w., she is fitted with triple expansion engines which give a speed of 10 knots. Previously fully refrigerated, she now carries insulated cargo only in the afterhold and 'tween deck. Built by Wm. Gray & Co. Ltd. as the *War Country*, she was sold soon after to the French Government who renamed her *Glaciere*. Later, in the 'twenties she was bought by the Cie Maritime de Transports Frigorifiques, Paris. She was acquired by her present owners in 1933 after a long spell of idleness at Hamburg.

The *Baltavia* has many points of interest and is one of the very few vessels to have been built in Scandinavia to U.S. account. A twin screw motorship of 11½ knots speed, and dimensions 314.6 ft. overall by 46.0 ft. beam, she has a d.w. tonnage of 3,208. A little over one third of her cargo space is insulated. Originally named *City of Panama*, she was the second of two sisters to be built by Gotaverken for the Pacific S.S. Co., of San Francisco. They were designed to operate on a regular service between ports in California, Central America and the Panama Canal, and had accommodation for 60 first and 60 third class passengers. The Pacific Mail S.S. Co., then a subsidiary of the Grace Line, was later wound up, its Central American and Intercoastal services being transferred to the Panama Mail S.S. Co., another of the Grace group. The ship was kept on her original route, with the exception of a short period when she ran between

S.S. "Baltara" the oldest ship in the fleet

'Frisco and the West coast of South America. Her name however, was twice changed, first to *Santa Catalina* and then in 1935 to *Chimu*. In the autumn of 1937 she and the similar *Cumbal* (ex *Santa Monica*, ex *City of San Francisco*) were bought by the United Baltic Corporation and renamed *Baltavia* and *Baltabor* respectively.

The *Baltavia* entered her new service the following year, after various alterations had been made, one of which reduced her passenger capacity to twelve. Following the outbreak of war, she was converted by Palmers, Hebburn, into a naval store ship and in 1940 started a

BY LAURENCE DUNN

S.S. "Baltrover," 2,179 tons gross, a Norwegian built ship with boilers on deck

two year commission which was spent at the Falkland Islands. After returning home in 1942 she was next put on the Mombassa-Trincomalee-Rangoon service and was kept on this until well after the end of the war, not returning home until July, 1947.

The photograph of the *Baltavia*, taken in 1952, shows her with a plain, cream painted funnel, an innovation which lasted but a short time and was not extended to other units.

Next and most important of this trio is the s.s. *Baltrover*, a 13 knot Fredriksstad-built ship of 3,260 tons d.w., which the Company bought in 1950 from V. Torkildsen of Bergen. The vessel, which was originally named *Marstenen*, measures 349.9 ft. overall by 50.9 ft. and is powered by one of her builder's steam motor double-compound type engines, which takes steam from two oil-fired Scotch boilers. After her purchase the *Baltrover* underwent extensive internal alterations, and she now carries insulated cargo in each of her four lower holds, the 'tween deck space being used for general cargo. In contrast to the two previous ships, which are of three-island type, the *Baltrover* has only a short sunken fo'c'sle. There are five hatches, of which the first two serve No. 1 hold, a short high superstructure and three pairs of king-posts, the latter having raised winch platforms at their bases. The vessel, which has accommodation for two passengers, operates on the London-Gdynia service, alternating with a Polish ship.

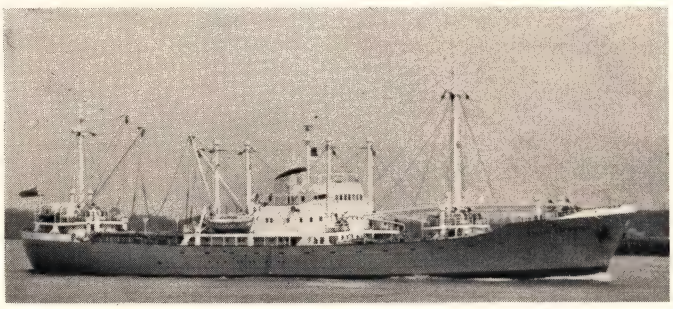
HANSA "A" TYPE SHIPS

The company owns two German-built standard ships, which were bought from the Government in 1947. These are the:

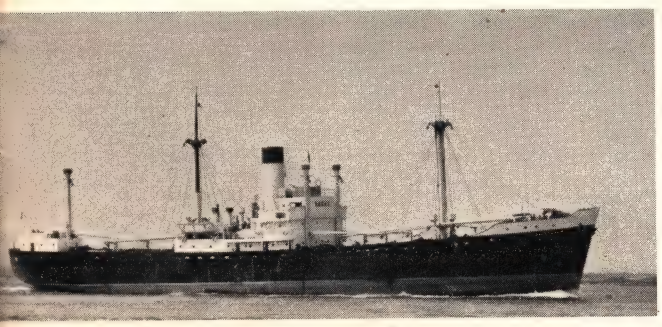
s.s. Baltic Fir	**Built 1945**	**1,967 tons gross**
s.s. Baltic Oak	**,, 1944**	**1,944 ,, ,,**

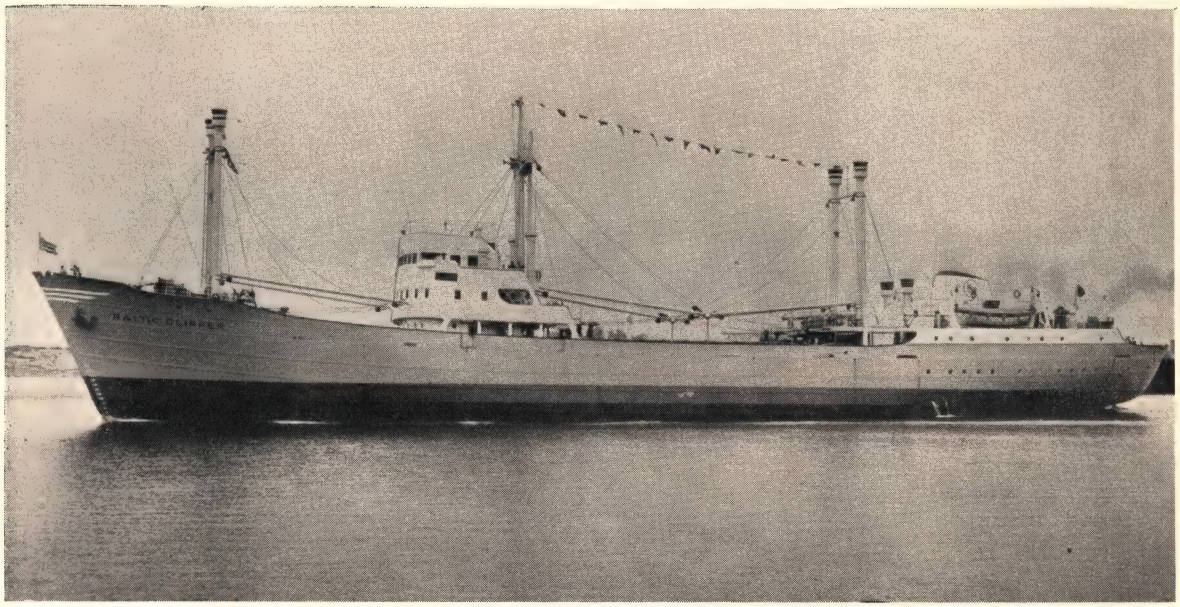
Both are products of the Deutsche Werft Shipyard and like others of this type measure 302 ft. in overall length by 44.5 ft. beam. Each has a d.w.c. of 3,200 tons and is fitted with a Lenz compound type engine and two Capus water-tube boilers, giving a speed of over 10 knots. They were originally known as the *Betsdorf* and *Adamsturm* respectively. Later they became the *Empire Gaffer* and *Empire Gallop*, then *Baltrader* and *Baltonia*, finally receiving their present names in 1952-53. They both belong to the smallest of the three German standard wartime types, the Hansa "A." Time and experience has proved their design to be an excellent one and the ships handy and economical in service. The *Baltic Fir* and *Baltic Oak* are used for the carriage of general cargo and timber, and therefore when in London generally use the Surrey Commercial Docks. They are of virtually identical appearance with short raised fo'c'sle, two holds forward and a third one aft, which is served by the mainmast and a single kingpost. A third ship, the *Baltic Pine* (*ex Baltanglia*, etc.) was sold last spring and is now the *Germania* of the Hellenic Lines Ltd., Piraeus.

Right: M.V. "Baltic Exporter," 1,664 tons gross. Built in 1953 for both the Baltic and Mediterranean trades. Note quarter deck extending aft from superstructure



Below: S.S. "Baltrader" now named "Baltic Fir," a Hansa "A" ship, smallest of the three standard wartime types





M.V. "Baltic Clipper" 1,198 tons gross, built 1954 and recently added to the fleet

BALTIC EXPORTER CLASS

On March 31st, 1953, the company took delivery of the first of four motor driven cargo liners built by the Werft Nobiskrug, of Rendsburg. This was the *Baltic Exporter*, notable as being the first vessel to be expressly built for the firm, as well as the first British ship, contracted and delivered from a German yard since the war. The four ships are named as follows, and were delivered in this order:

m.v. Baltic Exporter	**Built**	**1953**	**1,664 tons gross**
m.v. Baltic Importer	,,	**1953**	**1,683** ,, ,,
m.v. Baltic Merchant	,,	**1954**	**1,689** ,, ,,
m.v. Baltic Trader	,,	**1954**	**1,689** ,, ,,

Handsome streamlined vessels, they are electrically ventilated and designed to suit both the Baltic and Mediterranean trades. They have a service speed of 15 knots and are propelled by two M.A.K. type 10 cylinder engines. These develop a total of 3,600 b.h.p. and drive a single screw through hydraulic couplings and reduction gearing. One advantage of this arrangement is that when full power is not required, a speed of 12½ knots can be obtained by using only one motor.

All four ships are of shelter deck type, but the *Baltic Exporter* differs from the rest in also having a raised quarter deck, which extends aft from the end of the superstructure. She measures 316 ft. in length overall, compared with the figure of 325 ft. for the other three. All four, however, are of similar breadth, namely 42.3 ft. They have a very elaborate equipment of navigational aids and instead of the conventional wheel are fitted with push-button steering control. There are three holds, two forward, and a large one aft, all protected by sliding steel hatch covers. The cargo handling gear includes one 10-ton and nine 5-ton derricks. The crews' accommodation on these ships is of a particularly high standard. There is also a very fine owner's cabin, in which two passengers can be accommodated.

BALTIC COMET CLASS

Two smaller ships, fitted with engines aft, have been recently added to the fleet. They are the:

m.v. Baltic Clipper	**Built**	**1954**	**1,198 tons gross**
m.v. Baltic Comet	,,	**1954**	**1,198** ,, ,,

Products of the Rolandswerft, Bremen and the Krogerwerft, Rendsburg respectively, they, like the previous group, are designed for interchange between the Company's Finland, Casablanca, and Mediterranean services. Above their electrically ventilated holds there is a lofty 'tween deck, made 7 ft. high to permit the easy stowage of unpacked motor vehicles. Both ships have an overall length of 284.5 ft. and a breadth of 38.1 ft. The main propelling machinery comprises two 8 cylinder M.W.M. type engines, totalling 2,000 b.h.p. and these are geared to a single shaft. Although designed for a service speed of 14¾ knots, on trial, with a 10 per cent. overload, a maximum of 16.6 knots was attained, while the speed with only one engine working was 13.45 knots.

The ships have two holds, each with 'tween deck space above. The second hold is very large and is normally served by two hatches, but when required, a central beam can be removed, giving a total hatch length of 64 ft. There are two pairs of kingposts and these with the single midship mast mount one 15-ton, two 5-ton and four 3-ton derricks. Like the four larger ships they are fitted with MacGregor steel hatch covers and press-button steering. They were built in a remarkably short time. Ordered three days before Christmas, 1953, the *Baltic Clipper* was launched on June 22nd, 1954, and her sister, on July 3rd. Delivery took place on October 5th and October 2nd respectively.

The new vessels, it will be observed, are painted differently from the rest of the fleet. The older U.B.C. ships retain their traditional colours: black topsides and green boot-topping, separated by a white ribbon; white upperworks, cream masts and cream, black-topped funnel. The six new German-built units have a silvery "Pacific" grey for the topsides, with green below. Apart from this the only change lies in the addition of a white disc, carried on the stem and funnel, which has a red painted design incorporating a fouled anchor and the letters U B C.

Modelling a.. 50 GUN SHIP

On the establishment proposed in 1733

Instalment No. 18

By R. J. COLLINS

FOOTROPES for the yards are shown on the drawings of the yards, see June issue, p. 232. The fore and main yard foot ropes terminate in small dead eyes which are laced with 2 in. lanyards about three feet apart. There are two supports of the footropes on each side. Top and topgallant footropes are fastened to the parrel rope close up to the yards and have no supports. The sizes of the ropes : lower yards, 4 in. ; top yards, 3 in. ; topgallant, 2½ in.

Crows footing, all of 1 in. rope, is laced from the front of each top to a euphroe block, which in its turn is secured to the preventer stay by a small three part tackle each consisting of two 6 in. blocks. Fore euphroe 24 in. long with ten holes, main 30 in. long with twelve holes, and the mizzen 20 in. long with eight holes. Fig. 129a.

The weight of the lower yards is taken by heavy ropes known as jeers. Slung from the fore and main mast heads on each side are double blocks with their counterparts made fast to the lateen yard, through double, single, double and down to the top sheave in the port knight head between gun ports two and three. Fig. 131. Fore jeers 5 in. rope with 18 in. double blocks ; main 5½ in. with 20 in. double blocks ; mizzen 4 in. with 15 in. double and single blocks.

The spritsail yard and the crowjack yard are supported not only by slings but by standing lifts. The sling for the sprit yard is of 4 in. rope and is shown in Fig. 93. The standing lifts are 3 in. rope with small dead eyes (7 in.) and lanyards of 1 in. This lift is shown in the drawings of the yards. The sling for the crowjack is rather different (Fig. 132). A 12 in. single block is stropped to the middle of the yard and this is slung from the top over the stays and shrouds by a 3½ in. rope. The standing lifts of 2½ in. rope with small dead eyes and 1 in. lanyards are also shown in the drawing of the yards.

Lifts and halyards. For the spritsail halyard a three part

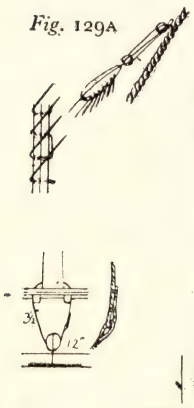


Fig. 132

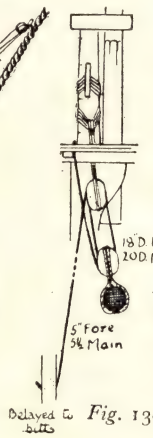


Fig. 130

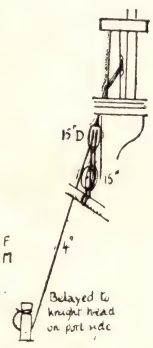


Fig. 131

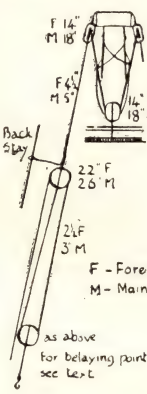


Fig. 133

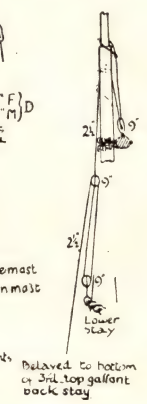


Fig. 134

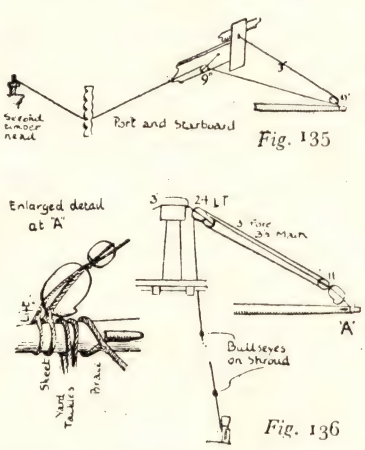


Fig. 135

Fig. 136

Fig. 129a. *Euphroe and crowsfooting. Note: This drawing should be turned through* 90 *deg.*
Fig. 130. *Fore and main jeers*
Fig. 131. *Lateen yard jeers*
Fig. 132. *Sling for crowjack yard*
Fig. 133. *Fore topsail halyard*
Fig. 134. *Fore topgallant halyard*
Fig. 135. *Spritsail yard lift*
Fig. 136. *Fore yard lift*

lashed to the slings of the yards. The jeer rope had best be considered as twice the normal length, the centre mark being placed to the back of the masthead, equally between the two stays. Each side passes down through the lubber hole and through the lower jeer block, back to the upper, lower, upper and down through a hole in the foc's'le deck, through the sheave in the bottom of the jeer bitts and belayed. Fig. 130. The pattern for the main mast is the same except that there is no deck to pass through to the jeer bitts. The mizzen jeers for the lateen yard consist of a single block lashed to the yard and a double block slung from aft of the top. The standing end of the rope is

tackle consisting of a 23 in. long tackle lashed to an eye bolt beneath the bowsprit and just over a foot below the cap. See Fig. 93. And a single 13 in. block on the sprit yard. A 3 in. rope goes through the tackles and is belayed to the gammoning on the port side.

Fore topsail halyard. A 14 in. double at the slings, two 14 in. singles, one either side of the mast cap. The standing end of a 4½ in. tie on each side is made fast to the slings on the mast head, and then down to the double block, up the block at mast head and terminates in a 22 in. flat block just above the level of the lower mast cap. From

(*Continued from December issue page* 457)

here a 2½ in. three part tackle to a similar block hooked with a long strop to an eye bolt just by the fo'c'sle hance, and belayed to the cleat just inside the bulwarks. Fig. 133.

Main topsail halyard. Double block on yard 18 in. and a pair of 18 in. singles slung from the cap, the general pattern as for the fore mast but with 5 in. tie and 26 in. flat blocks with tackle coming down to deck level with lower block hooked to eye bolt above end of main channel and the falls of 3 in. belayed to knight head. Note that the upper blocks of the tackle, both for the fore and main, are engaged to the after top mast backstay by means of a two foot pendant and a bullseye.

Mizzen topsail halyard. A 9 in. single block on yard. Standing end of 2½ in. tie on the masthead, down to block on yard, back through the sheave in the mast to terminate in a 9 in. single block about twelve feet above the level of the top, runners of 2 in. to another 9 in. single block hooked to an eyebolt just aft of gunport four on the starboard side and belayed beneath block. See Running Rigging, p. 341, Sept. issue.

Fore topgallant halyard. Single block on yard 9 in. Standing end of 2½ in. tie from masthead down to block, back through sheave in mast and terminating in a 9 in. single block about eight feet down on the starboard side. Standing end of runner on strop of pendant block, down to 9 in. block stropped to back of stay, back through pendant block to belay off at base of topgallant backstay. Fig. 134.

Spritsail yard lift. The standing end of a 3 in. rope is made fast to an eye bolt on the cap, through a 9 in. block on the yard, back to a 9 in. block with a one foot pendant about 2 ft. down the bowsprit, via the third sheave of rack block to second timber head. Fig. 135.

Fore yard lifts. The standing end of a 3 in. rope is made fast to the end of the yard, half hitched to the strop between the lift and the sheet blocks, thence to the lower part of a 24 in. long tackle (lashed with 3 in. rope to the cap) back to the 11 in. lift block, up to the upper part of the long tackle and down through the lubber hole to the knight-head near the foremast shrouds, passing through two bullseyes on the shroud, the first four feet from the futtock stave and the second four feet from the catharpins. Fig. 136—which also shows the order in which the ropes are placed on the yard. Main mast the same but with 3½ in rope.

Mizzen crowjack lift. Standing end of 2½ in. rope from

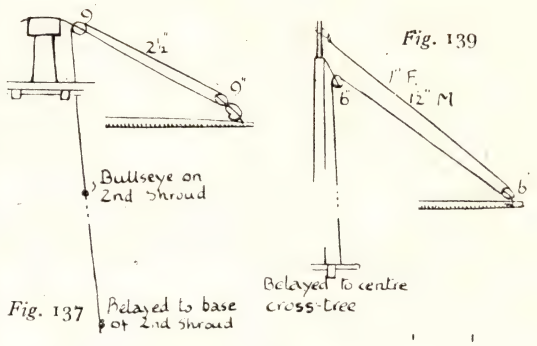


Fig. 137

Fig. 139

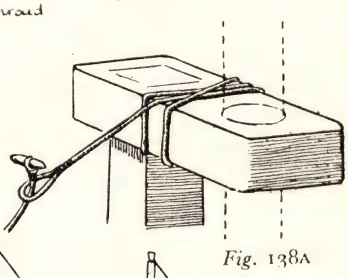


Fig. 138A

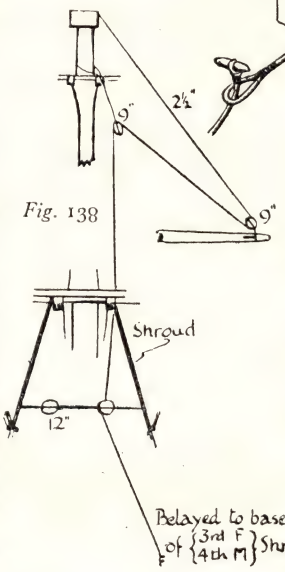


Fig. 138

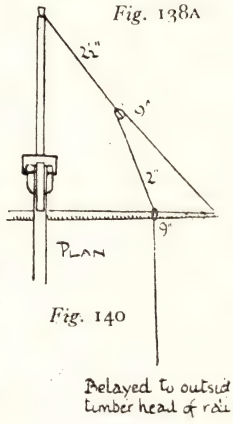


Fig. 140

Fig. 137. Mizzen crowjack lift
Fig. 138. Fore topsail lift
Fig. 138a. Toggle for connecting lift to pendant
Fig. 139. Fore topgallant lift
Fig. 140. Jibboom guy

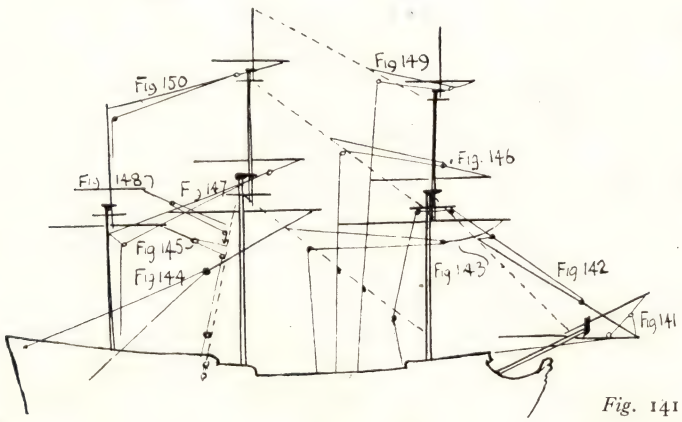


Fig. 141. General layout of braces

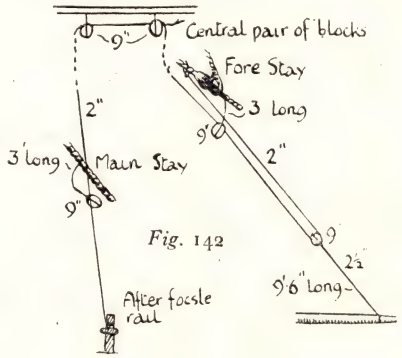


Fig. 142

Fig. 142. Spritsail brace

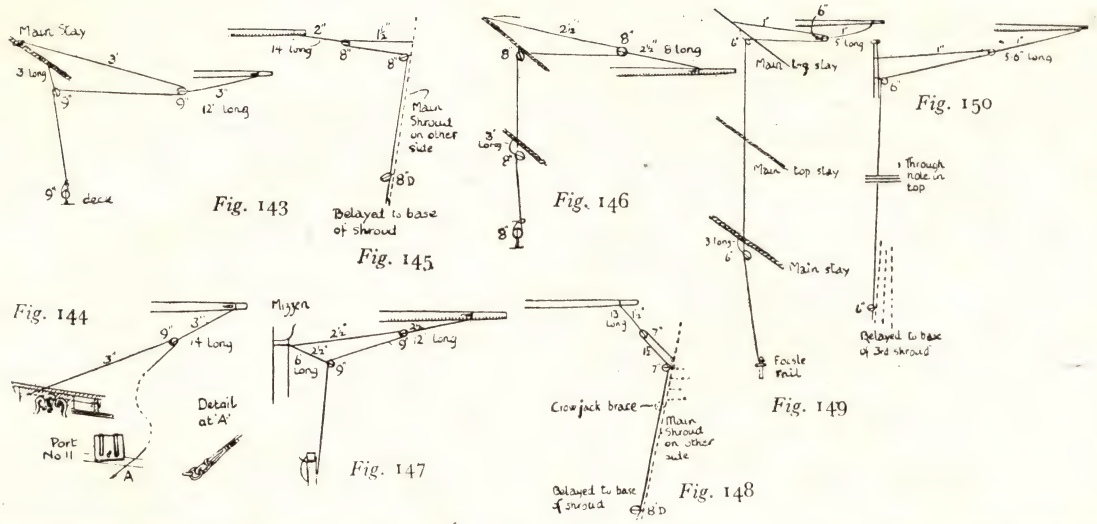


Fig. 143. *Fore brace*
Fig. 144. *Main brace*
Fig. 145. *Mizzen brace*
Fig. 146. *Fore topsail brace*
Fig. 147. *Main topsail brace*
Fig. 148. *Mizzen topsail brace*
Fig. 149. *Fore t'gallant brace*
Fig. 150. *Main t'gallant brace*

the strop of a single 9 in. block which is lashed to the mast cap, then to 9 in. lift block and back to block at cap, down by the second shroud (through a bullseye) and belayed to base of shroud. Fig. 137.

Fore topsail lifts. The topsail lift serves also for the topgallant sheet. The standing end of this rope is made fast to a short pendant from the top mast cap. When there are no sails it remains like that but when sails are worn it engages in the strop of the topgallant clew block in the clew of the sail. The actual method of attachment to the pendant appears to vary. In the Museum model it is knotted but I should think that in the actual ship it was by means of a loop and toggle and this is what I have drawn. See Fig. 138a. The lift then goes down to the 9 in. lift block on the yard, up to a 9 in. block slung on a pendant which reaches about two feet below the level of the cross trees and passes straight down via a 12 in. block slung between the shrouds to base of third shroud. Fig. 138. Mainmast lifts the same but to base of fourth shroud. Mizzen topsail lift. Standing end of 1½ in. rope from the mast head about a foot above the stay down to the 7 in. lift block on the yard, back through a similar block with a two feet pendant, down through the lubbers' hole and belayed to the bottom of the fourth shroud via a bullseye on the same shroud about 7 ft. 6 in. up from the rail. See Running Rigging Plan, p. 341, Sept. issue.

Fore topgallant lifts. Standing end of 1 in. rope from the mast head about a foot above the stay, down to the 6 in. lift block on the yard, back to a similar block with a 1 ft. 6 in. pendant and then belayed off to the middle cross tree. Main same as fore but with 1½ in. rope. It seems strange to me that this lift is belayed as I have written but I can only say that it is so on the model. Fig. 139.

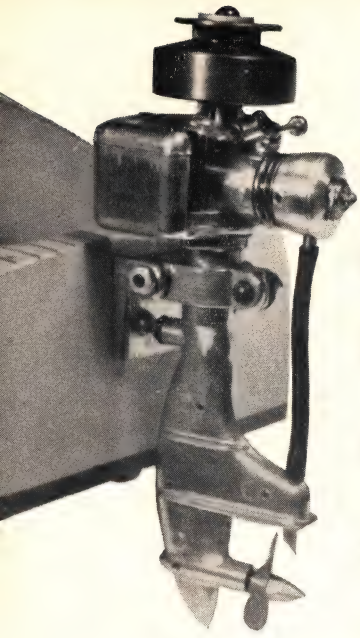
Jib-boom guy. A sixteen feet 2½ in. pendant with a 9 in. block from the end of the jib-boom. Standing end of 2 in. rope made fast to the end of sprit-yard, through the pendant block, back through a 9 in. block on the yard and belayed to first timber head of rail. Fig. 140.

Braces. These were the rope by which the yards were trimmed to suit the wind. They consist of a pendant from each end of the yard (tarred) terminating in a block through which is rove a rope having its standing end as far aft as is practicable, the running end being led to the deck generally via several leads. A general layout of the braces is shown in Fig. 141.

Spritsail braces. Pendant 2½ in., 9 ft. 6 in. long with 9 in. block, the standing end of the 2 in. runner is made fast to the stay loop about three feet from the mouse, from there down to the block on the pendant, up to a similar sized block on a three feet pendant from just below the mouse, through the middle of the fore-and-aft group of three books suspended from the top, through a block with a three feet pendant from the main stay and straight down to the after fo'c'sle rail. Fig. 142. Fore brace 3 in. pendant twelve feet long with 9 in. block. Standing end of the 3 in. runner on the main stay twelve feet below the mouse, to pendant block, back to block with a three feet pendant about two feet lower than the standing end, down to block on deck abaft the capstan, belayed above block. Fig. 143. Main brace, 3 in. pendant fourteen feet long and ending in a 9 in. block. Standing end of 3 in. runner at ring bolt about two feet beneath main deck port No. 11, from there up to block, back to lead-in through the solid part of the rail at stern and belayed to the last timber. Fig. 144. Mizzen brace (crowjack) 2 in. pendant fourteen feet long with 8 in. block, but unlike the others this one leads forward. Standing end of 1½ in. runner made fast to after main shroud (on opposite side) about thirteen feet below the top, from there to pendant block and forward to 8 in. block lashed to the shroud about eighteen inches below the standing end, down through an 8 in. double block lashed to shroud about four feet below the catharpins and so belayed to base of shroud. Fig. 145.

Fore topsail braces. Pendant 2½ in. rope eight feet long with 8 in. block. Standing end of 2½ in. runner from middle of main topmast stay to block on pendant, back to 8 in. block lashed to stay by a long strop (strop rather than a pendant) about two feet below the standing end, down to 8 in. block with three feet pendant on main stay and to 8 in. block engaged in ring bolt on the deck forward of the capstan. Fig. 146. Main topsail yard braces. Pendant of 2½ in. rope twelve feet long with 9 in. block. Another pendant about six feet long from the mizzen mast just below the hounds with 9 in. block. Standing end of 2½ in.

(*Continued on page* 72)



model outboard motors

BY P. G. F. CHINN

Left: The Atwood Outboard, which employs a flexible shaft drive to the propeller

THERE has lately been a marked increase in the popularity of model power boats—notably those of the scale type—due to the attention now being given to such craft by the commercial kit manufacturers. Complementary to this has been the interest shown by some of the model aircraft engine manufacturers in providing marine versions of their units for these models. All types of models have been making their appearance : cabin cruisers, runabouts, inboard hydroplanes, rescue launches and motor yachts. Only one popular prototype has been conspicuously absent : the outboard. Now, that omission has been rectified with the recent appearance, in America, of two ingenious miniature outboard motors : the Atwood and Allyn Sea-Fury, examples of which we have recently had the opportunity of trying out.

As the photographs show, these little units are most impressive in appearance. So far as performance is concerned, they appear to be equally satisfying and, while it is probable that slight modifications and improvements will be shown as desirable, both manufacturers appear to have got off to a very good start.

The Atwood unit is based on the popular Atwood .049 two-stroke model aircraft motor. This is a glowplug ignition unit with a crankshaft rotary valve and has a capacity of .049 cu. in. or just over 0.8 c.c. This power head is mounted vertically and the drive is taken off the crankpin by means of a special coupling. Transmission is quite simple and consists of a spiral wire flexible shaft connected between the drive coupling and propeller shaft. The lower housing is diecast in two halves and has a suitably shaped curved channel in which this flexible shaft operates.

The base of the power head also forms the bottom and sides of the fuel tank which surrounds the crankcase. The power head is attached by two machine screws and can be arranged so that the cylinder faces forward or aft in the aircooled version. At very slight extra cost, however, the Atwood is available as a water-cooled model and, in this, the cylinder is arranged to face aft and a flexible tube then connects the water jacket to a pick-up pipe just behind the propeller. The unit is finished off with a robust mounting bracket which allows full rotation and also an adjustment for rake.

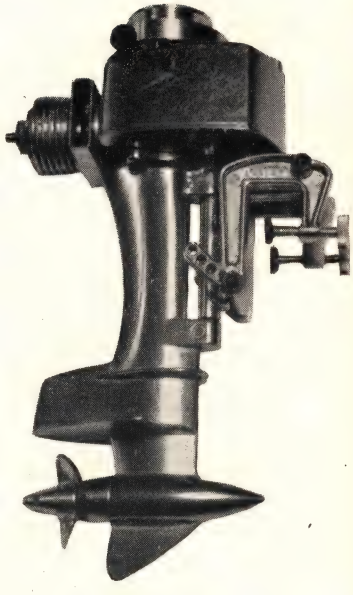
The unusual flexible drive appears to be quite satisfactory, although we feel that corrosion resulting from the ingress of sea water is something to be guarded against and liberal use of water-pump grease or a good graphite grease, would appear advisable.

The Allyn Sea-Fury unit is, perhaps, of more scalish appearance than the Atwood, although, at the moment, it is available only as an aircooled unit. The system of drive is also more in accordance with full scale practice in that a vertical shaft and bevel gearbox system is employed. A 1 : 1 gear ratio is still used, although the prop is slightly smaller that that of the Atwood, being $\frac{7}{8}$ in. × $\frac{7}{8}$ in.

The power head is again, basically, a .8 c.c. model aircraft unit, but has a revised crankshaft intake port location, giving opposite rotation. An attractively shaped fuel tank encircles the crankcase and the unit is provided with short exhaust ducts on each side. The lower housing is attractively shaped, with a wide cavitation plate, gear housing and integral skeg. The transom fitting is very realistic and has double clamps with knurled thumb-screws. Our only criticism here concerns the swivel mounting, which we found difficult to lock tightly against the pull of the starting cord.

We understand that one or two British manufacturers are becoming interested in the possibility of producing similar small outboards, adapted from existing small motors.

Above: Tests with the Sea-Fury were carried out using this 19-in. "Sea-Nymph" day cruiser hull supplied by Messrs. Aerokits Ltd.



As will be seen from this photograph. the Allyn Sea-Fury is of very realistic appearance

OBITUARY NOTICE

It is with the deepest regret that we have to report the death of Engineer Rear Admiral Alfred Turner, in his home at Lochsheath, Hants. He had enjoyed the Christmas holidays with his family but was taken ill early in the New Year and passed away peacefully on the morning of January 5th. He was laid to rest in the family grave in the Streatham Park Cemetery, S.W.16, on Saturday, January 8th. It will be recalled that Admiral Turner suffered the loss by amputation of his left leg barely 12 months ago, and how delighted we all were when he weathered this severe operation. He attended the British "A" Class Championship at Gosport last August, and although feeling his handicap, was his usual cheery self and taking a very keen interest in the racing. Admiral Turner, President of the M.Y.A., and also President of the International Model Yacht Racing Union, is too widely known for his outstanding research work on the balance of hull design and his many papers read to the Royal Society, for us to enumerate his many achievements

The mourners at his funeral included many near relatives and friends, including his sons Capt. Eric Turner and Major Roy Turner; Among the model yachtsmen to pay their last respects were Mr. G. Blogg, of the Y.M. 6 m. O.A.; Mr. R. Jurd, of Gosport. Mr. O. Steinberger, M.Y.S.A. and the London M.Y.C.; Comdr. (E.) F. Le Fluſy, Lt. Comdr. (E.) F. St. J. Le Flufy, sons of their famous father so well known to model yachtsmen in pre-war years, and C. R. Seabrooke, representing the M.Y.A. and the I.M.Y.R.U.

Whilst we are all the poorer by his passing away, we, who had the honour to know him and to be among his many friends, are yet the richer for his knowledge so freely given, and his steadfast friendship.

We salute the passing of a very gallant gentleman and to his family we humbly extend our sincerest condolences in their bereavement.

news from the clubs . . .

THE THAMES SHIPLOVERS' SOCIETY

The December meeting in the Baltic Exchange took the form of the farewell of the Founder and Hon. Sec., Mr. H. Vaughan Evans, who sailed for Australia in January 19th. From the fund subscribed for by the members, Mr. Evans was presented with a travelling case and other gifts, and later a leather-bound and suitably inscribed copy of the late Dr. Longridge's forthcoming book on "The Anatomy of Nelson's Ships" will be sent out to him. The Society's President, Commander Alan Villiers, D.S.C., who made the presentation, spoke of the valuable work Mr. Evans had done in founding and developing the club, and of the enormous volume of work entailed in bringing it to its present thriving state. A trophy, to be known as the H. Vaughan Evans Challenge Trophy, is also to be presented for annual competition at the "Model Engineer" Exhibition in order to keep Mr. Evans's name alive in this country. The evening's programme also included a "Sale by Candle" conducted by Capt. Henday and the singing of sea shanties led by Mr. Higley Halliday, assisted by gramophone records.

The February meetings will be on Friday the 11th at the East Holborn Library, Grays Inn Road, W.C.1, at 7.0 p.m., and on Friday the 25th at The Baltic Exchange, St. Mary Axe, E.C.3, at 6.30 p.m.

HAMMERSMITH SHIP MODEL SOCIETY

This society held a special gathering at its new headquarters, Westcott Lodge, on the banks of the river, on Tuesday, December 21st, to mark its 100th meeting since the war. A number of guests, including some from other S.M. societies were welcomed by the chairman, Mr. W. Gay. The Mayor of Hammersmith, Councillor W. G. Reynolds, who was one of the guests, spoke of his pleasure in having been invited and in finding there were so many people in Hammersmith eager to use their hands to produce things of beauty. The fact that he had himself built a model yacht for his son added to his interest in the gathering. Lt.-Cmdr. J. H. Craine ("Jason"), the president of the society, spoke of the early difficulties encountered by the society and of how they had been successfully overcome. A good number of models made by members were on show and aroused a great deal of interest.

The February meetings will be held in the new headquarters at 7.30 p.m., that on the 1st being a club night and on the 15th there will be a talk by Mr. G. Good on Electric Powered Models. In addition there will be a lecture by Capt. A. G. Course, author of "The Wheel's Kick and the Wind's Song" and "Round the World in Sail," in the Small Hall, Town Hall, W.6, at 7.30 p.m. on February 14th. An exhibition of Marine Paintings will be held in the Shepherd's Bush Library from February 19th to March 19th. Hon. Secretary : D. L. BENCHALL, 20, Ballingdon Road, Clapham, S.W.11.

WORLD SHIP SOCIETY, LONDON & HOME COUNTIES BRANCH

The February meeting of this branch of the World Ship Society will be held on Wednesday the 2nd at 7.15 p.m. at the "Two Brewers," Shoe Lane, London, E.C.4. A talk "Pleasure Steamers Fantasy" will be given by Mr. de Jory. W.S.S. Branch Secretary : J. R. DANIELL, 51, Little Marlow Road, Marlow, Bucks.

WORLD SHIP SOCIETY, MERSEYSIDE BRANCH

The February meeting will be held on Friday, the 25th at 7.30 at the Incorporated Accountants Hall (London Life Association Building), 25, Fenwick Street, Liverpool 2, when Mr. W. B. Hallam will speak on "Mersey Tugs." Visitors—ladies or gentlemen—are welcome. Hon. Secretary : S. G. DOCKER, 172, Morningside Road, West Derby (Tel.: Stanley 4227).

CLYDE SHIPLOVERS' AND MODEL MAKERS' SOCIETY

The following are the meetings for February :

February 14th, a talk on "Two Wars" by Capt. A. F. Rodger at Kelvingrove Art Galleries. Visitors cordially invited. February 28th, Club Night, when Mr. J. Danabie will give a talk on "Photographing Ships" to members and prospective members only ; at the Institute of Engineers and Shipbuilders.

EAST LONDON SHIP MODEL SOCIETY

On December 17th this society held a very pleasant function at the home of its chairman, Mr. H. B. Paysden, when a number of guests from other societies were invited to participate in a social evening. Representatives came from Hammersmith, Greenwich, Wembley, Southend, Thames Shiplovers' and other societies, and each spoke on the activities of his club. A very useful and successful evening was brought to a close by the president, Lt.-Cmdr. J. H. Craine ("Jason") with a vote of thanks to the host and hostess for their hospitality.

THE WEMBLEY SHIP MODEL SOCIETY

On Monday, February 14th, Mr. A. Spraggon will give a talk on "Knots, Splices and Fancy Work," Monday, February 28th, Lt.-Cmdr. Croome will lecture on Hydrographic Surveying. The meetings are held at the Bonhomie Tennis Club, 28, Harrowdene Road, North Wembley, at 8 p.m. Hon. Secretary: EWART C. FREESTONE, 41, Daryngton Drive, Greenford, Middlesex.

THE BRISTOL SHIPLOVERS' SOCIETY

The following are the forthcoming meetings :

Tuesday, Feb. 1st. "Yarns in the Dog Watch."
Tuesday, Feb. 15th. The "Ekaterinslav" by Mr. J. Claridge.
Tuesday, March 1st. Extracts from the Log by the chairman.

Meetings commence at 7.15 p.m. and are held in the Bristol Sailors' Home, Queen Square. Hon. Secretary : F. C. WATTS, Fifth Avenue, Northville, Bristol 7.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

On board the *Landfall*, Canning Dock, Liverpool on Thursday, February 10th, at 7.30 p.m., there will be an Open Soirée, and Discussion Meeting of the above society. Guest speakers to be announced. Hon. Secretary : A. N. RYAN, M.A., 28, Exchange Street East, Liverpool 2.

IPSWICH NAUTICAL RESEARCH SOCIETY

On Thursday, February 17th, at the Diocesan House, Tower Street, at 7.30 p.m., Mr. Archie White, author of "Tideways and Byways of Essex and Suffolk" will give a talk on "Old Time Charts," illustrated with examples from his collection. Anyone interested in ships and the sea is welcome. Hon. Secretary : H. W. MOFFAT, 8, Parkside Avenue, Ipswich.

NORFOLK NAUTICAL RESEARCH SOCIETY

The above society was recently launched with an initial membership of some 50 to 60, including two admirals (retired), several retired master mariners, together with yachtsmen, archaeologists, and many others. Enquiries are invited and should be addressed to the Asst. Hon. Secretary : A. A. PURVES, Hexon's Hill, The Street, Brundell, Norwich, Norfolk. Tel.: Brundell 298.

just to remind you . . . .

that in 1955

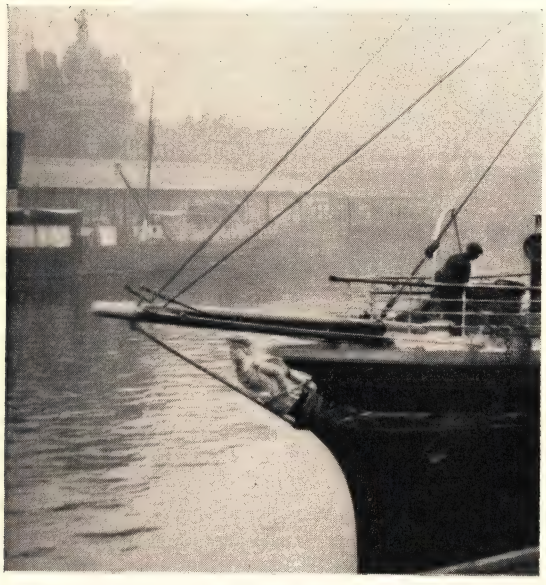
THE "MODEL ENGINEER" EXHIBITION

will be held from

AUGUST 17th—27th

Ships and Ship Models Mailboat

● **Letters of general interest on maritime matters are welcomed. A nom-de-plume may be used if desired, but the name and address of the sender must accompany the letter. The Editor does not accept responsibility for the views expressed by correspondents**



A FINE FIGUREHEAD

As an appendix to Mr. Weightman's interesting article on figureheads (December issue) I send this photograph of a fine figurehead that could be seen on the Clyde until recent years. The Campbeltown steamer *Davaar* was built just seventy years ago and was on the Glasgow-Campbeltown service until this was discontinued in 1939. Traffic goes by road now and it takes a look at the map to show why the Campbeltown people complain of this scrapping of the natural route to Campbeltown, away at the " toe " of the peninsula of Cantyre. It is over 100 miles by road from Glasgow, against 80 or so by sea, and the latter is mostly in sheltered waters, whereas the road in wintertime is sometimes impassable, and at all times it is mountainous.

The three Campbeltown ships on this route were known as the " Campbeltown yachts " when they first came out—the *Kinloch* and *Kintyre* were the others : the *Kinloch* was on local Channel Isles service latterly : the *Kintyre* was run down and sunk in the Clyde Firth many years ago. The *Davaar*, whose lovely figurehead is seen in the picture, was a ship of 495 regd. tons. A grand vessel (the *Dalriada*) was built in 1926, and was ideal for this service, but alas ! there seems no sign that the service will be restored. Incidentally it is one of the most beautiful routes in Scotland—and that is saying something.

Callander, Perthshire. WM. A. RAMSAY.

MORE FIGUREHEADS

I do not know whether you have come across the subjects of the enclosed photographs before but perhaps your readers may be interested in them. On first sight they look like figureheads but alas ! they are not. They are to be found at Shoreham and no doubt have many times excited the curiosity of the figurehead enthusiast. One of them, that which appears to be " Long John Silver," is at the Kingston Inn and was carved at a local wood yard for the proprietor by a man who had a flair for such carving, whilst the other is to be found at the Crown & Anchor and was carved to replace a genuine figurehead which formerly existed there. As marine curiosities I think they are worthy of a place in records even though they are not genuine ships' figureheads.

Rochester. A. E. WEIGHTMAN.

THE LARGEST SAILING SHIP—Cont/d.

" Foresail " in the October issue of SHIPS AND SHIP MODELS seems not to agree that *Preussen* was the largest sailing ship ever built and by quoting dimensions from Lloyd's Register implies that this distinction belonged to *France II*.

On the dimensions *France II* was certainly the larger of the two " vessels " but this still leaves *Preussen* the largest sailing ship.

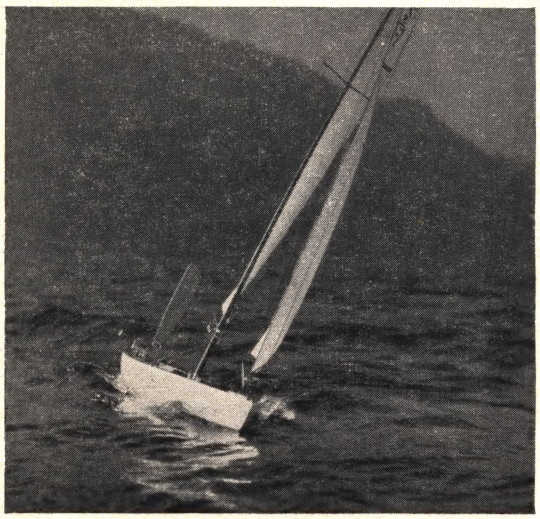
I suspect that " Foresail " used the word ship in its general sense, whereas in generally accepted sailor parlance the word ship applies to only one type of sailing vessel, viz., one having three or more masts, each of which is fully square rigged, and without auxiliary propelling engines at that.

This description fits *Preussen* with each of her five masts fully square rigged. *France II* with her five masts, only four of which were square rigged, was a barque and an auxiliary barque at that with twin screws and diesel engines.

Incidentally, there were at least two other sailing vessels of greater tonnage than *Preussen*. These were the five masted auxiliary barque *R. C. Rickmers* of 5,248 tons and the seven masted fore and aft schooner *Thomas W. Lawson* of 5,218 tons.

Preussen of 5,081 tons was the largest sailing " ship " and *France II* of 5,633 tons the larger sailing " vessel."

Yallourn, Victoria, Australia. C. H. CHRISTOPHER.



TESTS COMPLETED

If you are still interested in the model yachts of which I sent you particulars and photographs, which you published in the May issue, I wish to tell you that contrary to my first impressions as reported in my letter published in your July issue, the heavier yacht, made direct from the drawings, has shown itself, after repeated trials, faster than the one in which the depth was reduced. I am sending herewith a photograph of this model in the hope that it will interest your readers.

Although the water on Lac de Lecco, on which the yacht was tried out, is always a little rough, she stood up well to the conditions and was quite fast.

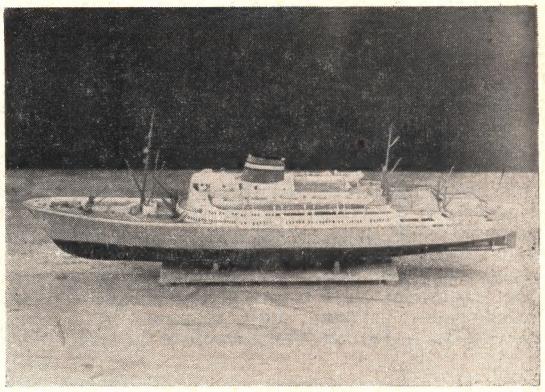
Milan, Italy. SILVIO ROTA.

A MODEL NORWEGIAN SHIP " OSLOFJORD " SCALE 1/600

The building of this model is entirely based on Mr. Donald McNarry's articles in this journal on miniature ship building. Without these articles, the model had not been built.

The plans appeared in the Norwegian journal " Teknik for Alle " in scale 1/600. I never before built models in this small scale, but as I had to stay in bed for a long time, I thought it would be a fine little work to do, and did not need long time to start, and when the model was nearly completed, I was recovered. I advise others to do the same.

I do not need to describe in any detail my methods for building the model. For all the superstructures however, I did not use bristol board as Mr. McNarry used in his models ; I used small pieces and thin strips of birch.



In the window screen I cut out large slots for each window group, gluing in place small pieces of wood cut from the slots.

To get the uprights between the windows as uniform as possible I made a little jig (Fig. 1) which may be useful.

On a suitable piece of wood, 3 other pieces are glued on (A and B). The distance between A and B is just the width of the uprights between the windows. The window slot is placed against A and B, and with a razor blade as many uprights as needed are cut and uniform.

I used two pieces A as it made it more easy cutting at right angles.

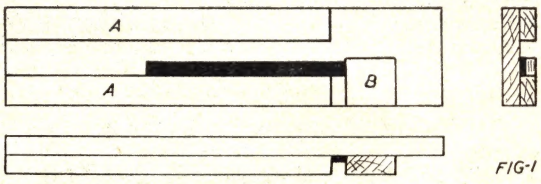


FIG-1

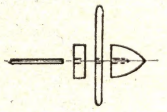


FIG-2

For the funnel I made a wooden former, and used wood shavings of ordinary pine, glued together crosswise, making a sort of plywood, and a strong and good funnel.

It was quite impossible for me to make castings for the propellers, so I made a cone of brass, drilled a hole in the forward end, cut off a thin slice, placed a little piece of brass between these two with a nail in the drilled hole and soldered the pieces together.

Fig. 2 gives an exploded view. With a little care it will give fairly good propellers.

For the davits I used small flat clips. For painting I used artists' colours, rubbing down when each layer is completely dry.

The port holes are drilled with a small dental burr. I tried to fill them with gum arabic, or " Canada balsam," used when gluing glass lenses together etc. However, I did not like it and discarded it.

The model is my first attempt in miniature ship modelling, and the model is not perfect. Many details were impossible to see properly in the plans. Some months ago I had the opportunity to see the model on exhibition at the offices of the " Norske Amerikalinje " and on the forecastle I have made some deck fittings as nearly as possible true to the prototype.

Sogn, Norway. KNUT PAULSEN.

NAUTICAL BOOK REVIEWS

IN PRAISE OF FISHING

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BULLETIN NO. 16.

International Radio Controlled Models Society

With the developments which are taking place in the control of models by radio, no one who is interested can afford to miss this publication—which means that he should be a member of the society, as the bulletin is only issued to members. This particular bulletin was prepared by the Tyneside group, which perhaps explains its strong maritime flavour. The article on model yacht control by a combination of vane gear and radio, sets one thinking, as does also that on the kitchen rudder. Space will not admit of more detailed comment but our advice to all interested is to make sure of getting a copy for themselves.

MODELLING A 50 GUN SHIP—*continued from page 65*

rope made fast to this pendant about a foot from the mast, thence to yard pendant block, back to mast pendant block and down to the lower sheave in the mizzen knight head. Fig. 147. Mizzen topsail yard braces. Pendant of 1½ in. rope thirteen feet long, with 7 in. block reaching forward. Standing end of 1½ in. rope on the after main shroud of the opposite side about four feet above crowjack brace, from there to pendant block, back to 7 in. block about one foot lower than the standing end, and thence through the double block (for mizzen brace), already mentioned to shroud. Fig. 148.

Fore topgallant braces. Pendant of 1 in. rope five feet long with 6 in. block. Standing end of 1 in. runner about twenty four feet up from the fore top on the topgallant stay, to pendant block, back to 6 in. block on stay about three feet lower, straight down to 6 in. block with a three feet pendant from the main stay and belayed to fo'c'sle after rail. Fig. 149. Main topgallant braces. Pendant of 1 in. rope 5 ft. 6 in. long with a 6 in. block. Standing end of 1 in. runner about two feet down the mizzen mast, to pendant block, and back to 6 in. block secured by a pendant 1 ft. 3 in. long about two feet below the standing end, thence down through holes in top to third shroud via a 6 in. block on the shroud. Fig. 150.

(*To be continued*)

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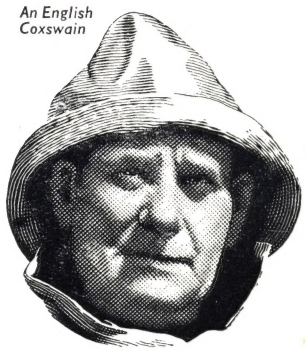

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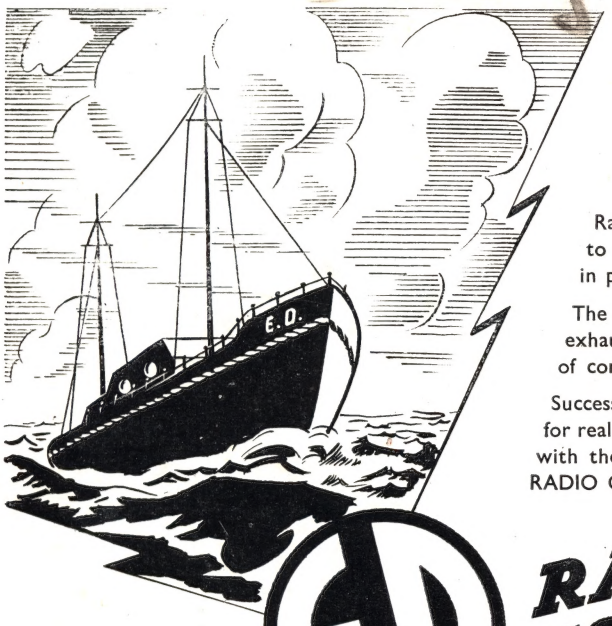

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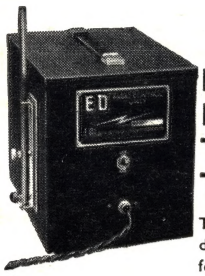

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